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Semiconductors

Memory, Micros, Embedded Computing & Peripherals - contents

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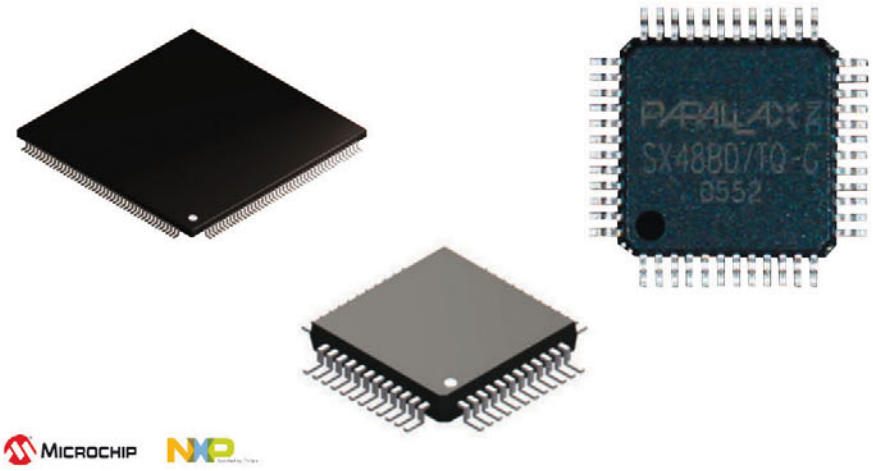

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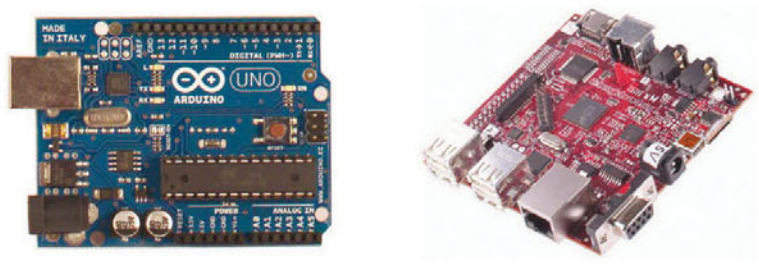

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Memory - DRAM

Manufacturers

Part No.	Manufacturer	RS Stock No.
A43L0616BV-7F	AMICTechnology	711-8038
A43L2616BV-7F	AMICTechnology	711-8032
A43L3616AV-7F	AMICTechnology	711-8041
A43L4616AV-7F	AMICTechnology	711-8044
H55M1G62MFP-E3	Hynix	668-6231
H55S1G62MFP-E3	Hynix	668-6212
IS42S16400D-7TLI	ISSI	391-652
IS42S32200C1-6TL	ISSI	391-757
MT41J128M16HA-187E:D	Micron	708-1129
MT46V16M16P-6T IT:K	Micron	708-1097
MT46V16M16P-6T:K	Micron	708-1093
MT46V32M16P-6T IT:F	Micron	708-1100
MT46V32M16P-6T:F	Micron	708-1107
MT47H32M16HR-3 IT:F	Micron	708-1113
MT47H32M16HR-3:F	Micron	708-1104
MT47H64M16HR-3 IT:H	Micron	708-1110
MT47H64M16HR-3:H	Micron	708-1116
MT48LC16M16A2P-75:D	Micron	708-1087
MT48LC16M16A2P-75IT:D	Micron	610-3931
MT48LC2M32B2P-7 IT:G	Micron	708-1078
MT48LC2M32B2P-7:G	Micron	708-1069
MT48LC32M16A2P-75 IT:C	Micron	708-1090
MT48LC32M16A2P-75:C	Micron	708-1081
MT48LC4M16A2P-75 IT:G	Micron	708-1065
MT48LC4M16A2P-75:G	Micron	708-1062
MT48LC4M32B2P-7 IT:G	Micron	708-1075
MT48LC4M32B2P-7:G	Micron	708-1071
MT48LC8M16A2P-75:G	Micron	708-1084
MT48LC8M16A2P-75IT:G	Micron	610-3919

Memory - EEPROM Parallel Access

Manufacturers

Part No.	Manufacturer	RS Stock No.
AT28C256-15PU	Atmel	696-3165
AT28C64B-15PU	Atmel	394-504
X28HC256PZ-12	Intersil	496-694
X28HC256PZ-15	Intersil	496-678

Memory - EEPROM Serial Access

Manufacturers

Part No.	Manufacturer	RS Stock No.
AT24C04BN-SH-B	Atmel	696-2890
AT24C1024BN-SH25-B	Atmel	696-3008
AT24C1024B-PU25	Atmel	696-3095
AT24C512B-PU25	Atmel	696-2888
AT25512-TH-B	Atmel	696-2761
IS24C01B-2GLI	ISSI	391-662
11LC020T-I/TT	Microchip	667-8081
24AA1025-I/SM	Microchip	667-8154
24FC1025-I/P	Microchip	687-9120
24FC256-I/ST	Microchip	667-8198
24LC01B/P	Microchip	831-781
24LC02B-I/ST	Microchip	667-8233
24LC08B-I/SN	Microchip	454-315
24LC128-I/P	Microchip	454-185
24LC256-E/P	Microchip	667-8242
24LC256-I/P	Microchip	454-371
24LC256-I/SN	Microchip	454-331
24LC32A-I/SN	Microchip	454-381
24LC512-I/P	Microchip	454-191
25AA512-I/SM	Microchip	667-8277
25LC1024-I/P	Microchip	454-056
25LC1024-I/SM	Microchip	454-066
25LC128-I/SN	Microchip	454-050
25LC256-I/P	Microchip	454-173
25LC256-I/SN	Microchip	454-167
25LC512-I/P	Microchip	454-179
25LC512-I/SN	Microchip	454-321
PCF8582C-2P/03,112	NXP	511-058
BR24C21F-E2	Rohm	731-6850
BR24L01AFVM-WTR	Rohm	731-6854
BR24L02FVM-WTR	Rohm	731-6863
BR24L04FVM-WTR	Rohm	731-6866
BR24L08FVM-WTR	Rohm	731-6860
BR24L08FV-WE2	Rohm	731-6879
BR24L16FVM-WTR	Rohm	731-6872
BR24L32FV-WE2	Rohm	731-6876
BR24S08F-WE2	Rohm	731-6885
BR24S128F-WE2	Rohm	731-6888
BR24S16F-WE2	Rohm	731-6882
BR24S256F-WE2	Rohm	731-6891
BR24S32F-WE2	Rohm	731-6894
BR24S64F-WE2	Rohm	731-6898
BR25L640F-W	Rohm	640-4638
BR34L02FV-WE2	Rohm	731-6908
BR93L46RFJ-WE2	Rohm	731-6901
BR93L46RFVM-WTR	Rohm	731-6905
BR93L46RFV-WE2	Rohm	731-6914
BR93L46RF-WE2	Rohm	731-6917
BR93L56RFJ-WE2	Rohm	731-6911
BR93L56RFVM-WTR	Rohm	731-6920
BR93L56RFV-WE2	Rohm	731-6923
BR93L56RF-WE2	Rohm	731-6927
BR93L66RFJ-WE2	Rohm	731-6936
BR93L66RFVM-WTR	Rohm	731-6939
BR93L66RF-WE2	Rohm	731-6933
BR93L76RFJ-WE2	Rohm	731-6942
BR93L76RFVM-WTR	Rohm	731-6945
BR93L76RF-WE2	Rohm	731-6949
BR93L86RFJ-WE2	Rohm	731-6958
BR93L86RFVM-WTR	Rohm	731-6951
BR93L86RF-WE2	Rohm	731-6955
BU9883FV-WE2	Rohm	731-8948
M24128-BWMN6P	STMicroelectronics	686-2441
M24C02-RMN6TP	STMicroelectronics	686-2425
M24C02-WBN6	STMicroelectronics	415-1124
M24C04-WBN6	STMicroelectronics	415-1146
M24C08-WMN6TP	STMicroelectronics	686-2403
M24C16-RDW6TP	STMicroelectronics	686-2356
M24C16-WMN6	STMicroelectronics	380-1941
M24C32-RMB6TG	STMicroelectronics	686-2346
M24M01-RMN6P	STMicroelectronics	445-911
M93C46-WBN6	STMicroelectronics	415-6719
M93C46-WBN6P	STMicroelectronics	686-2479
M93C46-WMN6	STMicroelectronics	415-6725
M93C66-WMN6	STMicroelectronics	415-6747
M93C86-WBN6P	STMicroelectronics	686-2469
M95640-WMN6TP	STMicroelectronics	686-2289

Memory - FIFO

Manufacturers

Part No.	Manufacturer	RS Stock No.
IDT7202LA12TPG	IDT	714-4908
IDT7205L15JGI	IDT	714-4936
SN74V263PZAEP	Texas Instruments	662-5365
SN74V293-6PZA	Texas Instruments	662-5374

Memory - Flash EPROM

Manufacturers

Part No.	Manufacturer	RS Stock No.
A25L010-F	AMICTechnology	711-7953
A25L010M-F	AMICTechnology	711-7950
A25L010O-F	AMICTechnology	711-7956
A25L016-F	AMICTechnology	711-7984
A25L016N-F	AMICTechnology	711-7988
A25L020-F	AMICTechnology	711-7969
A25L020M-F	AMICTechnology	711-7966
A25L020O-F	AMICTechnology	711-7962
A25L032-F	AMICTechnology	711-7997
A25L032M-F	AMICTechnology	711-7990
A25L032N-F	AMICTechnology	711-7994
A25L040-F	AMICTechnology	711-7975
A25L040O-F	AMICTechnology	711-7978
A25L080-F	AMICTechnology	711-7972
A25L080O-F	AMICTechnology	711-7981
A25L512-F	AMICTechnology	711-7947
A25L512M-F	AMICTechnology	711-7944
A25L512O-F	AMICTechnology	711-7940
A25LQ032-F	AMICTechnology	711-8007
A25LQ032M-F	AMICTechnology	711-8000
A25LQ032N-F	AMICTechnology	711-8004
A29010-70F	AMICTechnology	711-8013
A29010L70F	AMICTechnology	711-8016
A29010V-70F	AMICTechnology	711-8010
A29040B-70F	AMICTechnology	573-494
A29040BL-70F	AMICTechnology	573-505
A29L040-70F	AMICTechnology	711-8029
A29L040L-70F	AMICTechnology	711-8022
A29L040V-70F	AMICTechnology	711-8026
AT25DF161-SSH-B	Atmel	696-2724
AT25DF641-S3H-B	Atmel	696-2733
AT29C010A-90JC	Atmel	311-316
AT45DB081D-SSU	Atmel	696-3140
AT45DB161D-SU	Atmel	696-3083
AT45DB321D-SU	Atmel	696-2985
CAT28F010LI-12	Catalyst Semiconductor	540-949
HY27UF081G1M-TPCB	Hynix	668-6168
HY27UF082G2A-TPCB	Hynix	668-6174
HY27UF084G2B-TPCB	Hynix	668-6183
AM29F010B-120JC	Spansion	626-1239
AM29F040B-55JC	Spansion	626-1374
AM29F040B-55JI	Spansion	626-1380
AM29F160DB-75EI	Spansion	626-1150
AM29F400BB-90SI	Spansion	626-1431
AM29F400BT-70EC	Spansion	626-1122
AM29F400BT-90SC	Spansion	626-1037
AM29F800BB-70EC	Spansion	626-1166
S29GL512P11TFI010	Spansion	573-567
M25P16-VMF6P	STMicroelectronics	387-966
M25P32-VMF6P	STMicroelectronics	134-582
M25P80-VMW6G	STMicroelectronics	388-094
M29W320DB70N6	STMicroelectronics	485-6504
M29W320DB70N6E	STMicroelectronics	387-984
M29W800DB45ZE6E	STMicroelectronics	387-883

Memory - FRAM

Manufacturers

Part No.	Manufacturer	RS Stock No.
FM21L16-60-TG	Ramtron International	716-5729
FM24C04A-G	Ramtron International	716-5700
FM24C16A-G	Ramtron International	716-5690
FM24C256-G	Ramtron International	716-5716
FM24C512-G	Ramtron International	716-5738
FM24C64-G	Ramtron International	716-5713
FM25640-G	Ramtron International	716-5719
FM25C160-G	Ramtron International	716-5703
FM25H20-DG	Ramtron International	716-5731
FM25L256B-G	Ramtron International	394-914
FM28V100-TG	Ramtron International	716-5735

Memory - Identification

Manufacturers

Part No.	Manufacturer	RS Stock No.
DS1920-F5+	Dallas Semiconductor	137-525
DS1971-F5+	Dallas Semiconductor	137-626
DS1990A-F5+	Dallas Semiconductor	151-622
DS2401+	Dallas Semiconductor	540-4788
DS2430A+	Dallas Semiconductor	540-4801
DS2502+	Dallas Semiconductor	540-4839
DS9092+	Dallas Semiconductor	137-531
DS9093A+	Dallas Semiconductor	137-632
DS9093AG+	Dallas Semiconductor	137-654
DS9093AY+	Dallas Semiconductor	137-682
DS9098+	Dallas Semiconductor	137-913

Memory - NVRAM

Manufacturers

Part No.	Manufacturer	RS Stock No.
DS1225AD-150+	Dallas Semiconductor	132-766
DS1230Y-120+	Dallas Semiconductor	132-823
DS1230Y-70+	Dallas Semiconductor	132-801
DS1245Y-70+	Dallas Semiconductor	132-839
DS1643-120+	Dallas Semiconductor	132-851
GR12883	Greenwich Instruments	659-797
GR881	Greenwich Instruments	659-775
DS1220AB150+	Maxim	133-775
DS1220AB-200+	Maxim	132-643
DS1220AD-100+	Maxim	132-637
DS1220AD-200+	Maxim	132-659
DS1225AB-150+	Maxim	132-671
DS1230AB-100+	Maxim	134-469
DS1230AB-70+	Maxim	132-772
DS1230YP-100+	Maxim	134-475
DS1243Y-120+	Maxim	136-667
DS1245Y-120+	Maxim	132-845
DS1644-120+	Maxim	133-220
M48T02-150PC1	STMicroelectronics	310-9655
M48T02-70PC1	STMicroelectronics	436-8489
M48T08-100PC1	STMicroelectronics	189-2412
M48T08-150PC1	STMicroelectronics	310-9661
M48T35-70PC1	STMicroelectronics	310-9683
M48T35AV-10PC1	STMicroelectronics	686-8552
M48T35Y-70MH1E	STMicroelectronics	306-6873
M48T58Y-70PC1	STMicroelectronics	686-5030
M48Z02-200PC1	STMicroelectronics	189-2399
M48Z02-70PC1	STMicroelectronics	624-8488
M48Z08-100PC1	STMicroelectronics	189-2428
M48Z18-100PC1	STMicroelectronics	714-7572
M48Z35Y-70PC1	STMicroelectronics	310-9734
M48Z512AY-70PM1	STMicroelectronics	415-6703
BQ4011MA-100	Texas Instruments	660-6348

Memory - OTP EPROM

Manufacturers

Part No.	Manufacturer	RS Stock No.
AT27C020-55PU	Atmel	696-2945
AT27C020-90PU	Atmel	696-2960
AT27C040-70JU	Atmel	696-2967

Memory - OTP EPROM

Manufacturers

Part No.	Manufacturer	RS Stock No.
AT27C080-90PU	Atmel	696-3184
AT27C1024-70JU	Atmel	696-2759
AT27C1024-70PU	Atmel	696-2768
AT27C256R-70JU	Atmel	696-2957
AT27C512R-45JU	Atmel	696-2910
AT27C512R-45PU	Atmel	696-3017
M27C2001-12C1	STMicroelectronics	310-9217
M27C4001-10B1	STMicroelectronics	387-209
M27C512-90C1	STMicroelectronics	346-4586
M27C512-90B6	STMicroelectronics	394-487

Memory - SRAM

Manufacturers

Part No.	Manufacturer	RS Stock No.
AS6C1008-55SIN	Alliance Memory	538-170
AS6C1008-55TIN	Alliance Memory	538-176
AS6C4008-55SIN	Alliance Memory	538-160
AS6C62256-55PCN	Alliance Memory	538-148
AS6C62256-55SIN	Alliance Memory	538-142
AS6C6264-55PCN	Alliance Memory	538-158
AS6C8016-55ZIN	Alliance Memory	538-271
AS7C1024C-12JIN	Alliance Memory	538-237
AS7C1026C-12JIN	Alliance Memory	538-265
AS7C4098A-12TIN	Alliance Memory	538-249
CY62128ELL-45SXI	Cypress Semiconductor	194-859
CY62256LL-70PXC	Cypress Semiconductor	642-7372
CY62256LL-70SNXC	Cypress Semiconductor	643-2992
CY7C1009D-10VXI	Cypress Semiconductor	710-5708
CY7C1011DV33-10ZSXI	Cypress Semiconductor	710-5701
CY7C1019DV33-10VXI	Cypress Semiconductor	710-5698
CY7C1041DV33-10BVXI	Cypress Semiconductor	710-5705
CY7C1041DV33-10ZSXI	Cypress Semiconductor	710-5717
CY7C1049DV33-10VXI	Cypress Semiconductor	710-5714
CY7C1051DV33-10ZSXI	Cypress Semiconductor	710-5711
CY7C1059DV33-10ZSXI	Cypress Semiconductor	710-5720
CY7C1061AV33-10ZXI	Cypress Semiconductor	710-5723
CY7C199D-10VXI	Cypress Semiconductor	710-5694
IDT7130SA55P	IDT	345-6737
IDT7132LA35PDG	IDT	714-4826
IS61C1024AL-12JLI	ISSI	391-731
IS61LV25616AL-10TLI	ISSI	391-707
IS61LV51216-10TLI	ISSI	391-628
IS61LV6416-10TL	ISSI	392-362
IS62C256AL-45ULI	ISSI	391-640
IS62WV25616BLL-55TLI	ISSI	391-624
23K256-I/P	Microchip	666-8144
23K256-I/SN	Microchip	666-8148
PCF8570P/F5,112	NXP	427-708
R1LP0408CSP-5SC	Renesas	641-2364
R1LP0408CSP-5SI#BT	Renesas	577-709
UPD431000ACZ-70LL	Renesas	264-989

Memory - RAM & NVRAM Accessories

Manufacturers

Part No.	Manufacturer	RS Stock No.
DS9034PCX+	Dallas Semiconductor	137-799
M40SZ100WMQ6E	STMicroelectronics	686-1700
M4T28-BR12SH1	STMicroelectronics	189-1239
M4T32-BR12SH6	STMicroelectronics	714-0861
M4Z28-BR00SH1	STMicroelectronics	189-1267
M4Z32-BR00SH1	STMicroelectronics	686-7477

Memory - UV EPROM

Manufacturers

Part No.	Manufacturer	RS Stock No.
M27C1001-10F1	STMicroelectronics	169-3439
M27C1001-12F1	STMicroelectronics	368-8811
M27C1001-15F1	STMicroelectronics	659-567
M27C1001-45XF1	STMicroelectronics	368-8827
M27C2001-10F1	STMicroelectronics	368-8849
M27C2001-12F1	STMicroelectronics	181-8492
M27C2001-15F1	STMicroelectronics	368-8883
M27C256B-10F1	STMicroelectronics	251-9657
M27C256B-12F1	STMicroelectronics	368-8912
M27C256B-12F6	STMicroelectronics	436-9735
M27C256B-15F1	STMicroelectronics	368-8928
M27C256B-45XF1	STMicroelectronics	415-1405
M27C256B-70XF1	STMicroelectronics	368-8704
M27C256B-90F6	STMicroelectronics	387-427
M27C4001-10F1	STMicroelectronics	169-3473
M27C4001-12F1	STMicroelectronics	422-876
M27C4001-15F1	STMicroelectronics	368-8990
M27C4001-45XF1	STMicroelectronics	310-9239
M27C4002-10F1	STMicroelectronics	346-4479
M27C4002-12F1	STMicroelectronics	368-9038
M27C4002-45XF1	STMicroelectronics	415-1477
M27C512-10F1	STMicroelectronics	169-3388
M27C512-12F1	STMicroelectronics	322-3767
M27C512-15F1	STMicroelectronics	368-9094
M27C512-45XF1	STMicroelectronics	322-3773
M27C512-45XF1	STMicroelectronics	368-9117
M27C512-90F6	STMicroelectronics	415-1499
M27C64A-10F1	STMicroelectronics	415-1512
M27C801-100F1	STMicroelectronics	310-9784
M27C801-100F1	STMicroelectronics	368-9145

Analog Devices

Manufacturers

Part No.	Manufacturer	RS Stock No.
ADSP-BF531SBSTZ400	Analog Devices	538-5031
ADSP-BF561SBBZ600	Analog Devices	697-8079
ADUC7021BCPZ62	Analog Devices	708-9849
ADUC841BCPZ8-5	Analog Devices	708-9870
ADuC845BS8-5	Analog Devices	496-7373
ADZS-21364-EZLITE	Analog Devices	698-1747
ADZS-BFAV-EZEXT	Analog Devices	698-1728

Atmel

Manufacturers

Part No.	Manufacturer	RS Stock No.
A000009	Arduino	715-4088
A000010	Arduino	715-4097
A000046	Arduino	715-4081
A000047	Arduino	715-4084
Getting Started With Arduino	Arduino	696-1658
Kit base w/o Arduino	Arduino	696-1689
Making Things Talk	Arduino	696-1651
Nano	Arduino	696-1667
Shield - MEGA Proto	Arduino	696-1683
Shield - MEGA Proto KIT	Arduino	696-1692
Shield - Proto	Arduino	696-1673
Shield - Proto KIT	Arduino	696-1677
Shield - Xbee w/o RF module	Arduino	696-1670
AT32UC3A0512-ALUT	Atmel	696-3427
AT32UC3A1512-AUT	Atmel	696-3430
AT32UC3B0256-A2UT	Atmel	696-3323
AT89C2051-24SC	Atmel	296-4136
AT89C5131A-S3SUM	Atmel	696-2493

Atmel

Manufacturers

Part No.	Manufacturer	RS Stock No.
AT89C51ED2-RLTUM	Atmel	696-3449
AT89C51ED2-SLSUM	Atmel	696-2480
AT89C51RE2-SLSUM	Atmel	696-2418
AT89ISP	Atmel	696-2424
AT89S2051-24PU	Atmel	696-2386
AT89S51-24PU	Atmel	696-2443
AT89S52-24JU	Atmel	666-4458
AT89S52-24PU	Atmel	666-4420
AT90CAN64-16AU	Atmel	696-3437
AT90USB1287-AU	Atmel	696-3225
AT91SAM7X256B-AU	Atmel	696-3213
AT91SAM7X-EK	Atmel	696-2355
AT91SAM-ICE	Atmel	696-2377
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ATAVRISP2	Atmel	696-2563
ATAVRONEKIT	Atmel	696-2437
ATAVRRZRAVEN	Atmel	696-2402
ATAVRRZUSBSTICK	Atmel	696-2415
ATEVK1100	Atmel	696-2465
ATEVK1101	Atmel	696-2553
ATMEGA1281-16AU	Atmel	696-3411
ATMEGA128-16AU	Atmel	622-3338
ATMEGA1284P-AU	Atmel	696-3011
ATMEGA1284P-MU	Atmel	696-3014
ATMEGA128L-8AU	Atmel	622-3401
ATMEGA16-16PU	Atmel	628-0000
ATMEGA162-16AU	Atmel	628-1277
ATMEGA162-16PU	Atmel	628-1441
ATMEGA164P-20AU	Atmel	666-4528
ATMEGA164PA-AU	Atmel	696-3231
ATMEGA168P-20AU	Atmel	696-3496
ATMEGA168P-20MU	Atmel	696-3235
ATMEGA168PA-AU	Atmel	696-3244
ATMEGA168PA-MU	Atmel	696-3247
ATMEGA168PV-10AU	Atmel	696-3493
ATMEGA169PA-MU	Atmel	696-3272
ATMEGA169PV-8AU	Atmel	696-3461
ATMEGA16A-PU	Atmel	696-2421
ATMEGA16L-8AU	Atmel	629-2249
ATMEGA2560-16AU	Atmel	666-4530
ATMEGA2560V-8AU	Atmel	696-3424
ATMEGA32-16AU	Atmel	628-1485
ATMEGA32-16PU	Atmel	628-1491
ATMEGA324P-20PU	Atmel	696-2535
ATMEGA324PA-AU	Atmel	696-3099
ATMEGA324PA-MU	Atmel	696-3045
ATMEGA324PA-PU	Atmel	696-2279
ATMEGA324PV-10AU	Atmel	696-3465
ATMEGA328P-AU	Atmel	696-3092
ATMEGA328P-PU	Atmel	696-2260
ATMEGA329PV-10AU	Atmel	696-3332
ATMEGA32A-AU	Atmel	696-3477
ATMEGA32A-MU	Atmel	696-3036
ATMEGA32A-PU	Atmel	696-2428
ATMEGA32L-8PU	Atmel	628-1558
ATMEGA32U4-AU	Atmel	696-2995
ATMEGA64-16AU	Atmel	628-1671
ATMEGA644P-20AU	Atmel	696-3455
ATMEGA8-16AU	Atmel	628-1687
ATMEGA8-16PU	Atmel	628-1788
ATMEGA8515-16PU	Atmel	628-2270
ATMEGA8535-16PU	Atmel	628-3217
ATMEGA8535L-8AU	Atmel	628-3380
ATMEGA88PA-AU	Atmel	696-3193
ATMEGA88PA-MMH	Atmel	696-3115
ATMEGA88PA-PU	Atmel	696-2272
ATMEGA8L-8AU	Atmel	628-3431
ATMEGA8L-8PU	Atmel	628-3447
ATSTK500	Atmel	384-935
ATSTK600	Atmel	696-2446
ATSTK600-DIP40	Atmel	696-2575
ATTINY13A-PU	Atmel	696-2409
ATTINY13A-SSU	Atmel	696-2395
ATTINY2313-20PU	Atmel	696-2636
ATTINY2313-20SU	Atmel	666-4492
ATTINY24-20PU	Atmel	696-2557
ATTINY25-20PU	Atmel	696-2617
ATTINY25V-10PU	Atmel	696-2305
ATTINY26-16PU	Atmel	666-4405
ATTINY261V-10PU	Atmel	696-2626
ATTINY44V-10MU	Atmel	696-3279
ATTINY44V-10SSU	Atmel	696-2525
ATTINY45-20PU	Atmel	696-2614
ATTINY461-20SU	Atmel	696-2572
ATTINY461V-10MU	Atmel	696-3382
ATTINY84-20PU	Atmel	696-2594
ATTINY84V-10PU	Atmel	696-2591
ATTINY84V-10SSU	Atmel	696-2651
ATTINY85-20PU	Atmel	696-2327
ATTINY861-20MU	Atmel	696-3360
ATTINY861V-10SU	Atmel	696-2351
ATTINY88-PU	Atmel	696-2406
ATXMEGA128A1-AU	Atmel	666-4578
ATXMEGA256A3-AU	Atmel	696-3216

Cypress

Manufacturers

Part No.	Manufacturer	RS Stock No.
CY3210-PSOCEVAL1	Cypress Semiconductor	390-681
CY3270	Cypress Semiconductor	445-977
CY3280-BK1	Cypress Semiconductor	710-5565
CY36800	Cypress Semiconductor	710-5553
CY3684	Cypress Semiconductor	710-5569
CY8C27443-24PVXI	Cypress Semiconductor	390-748
CY8C27443-24PXI	Cypress Semiconductor	390-738
CY8C29466-24PXI	Cypress Semiconductor	390-794
CY8C29466-24SXI	Cypress Semiconductor	390-798
CY8C29566-24AXI	Cypress Semiconductor	390-788
CY8CKIT-001	Cypress Semiconductor	710-5540
CY8CKIT-002	Cypress Semiconductor	710-5543
CY8CKIT-003	Cypress Semiconductor	710-5578
CY8CKIT-007	Cypress Semiconductor	710-5547
CY8CKIT-029	Cypress Semiconductor	710-5575

Freescale

Manufacturers

Part No.	Manufacturer	RS Stock No.
DEMO9S08QG8	Freescale	624-3427
DEMO9S08QG8E	Freescale	309-354
M523xEVBE	Freescale	624-3607
MC68HC11E1CFNE2	Freescale	539-0184
MC68HC705C8ACFNE	Freescale	539-0291
MC68HC705J1ACPE	Freescale	539-0320
MC705C8ACPE	Freescale	539-0285
MC9S08GB60ACFUE	Freescale	642-8959
MCF5211LCVM80	Freescale	396-556
MCF52235CAL60	Freescale	396-578
MCHC11F1CFNE3	Freescale	539-0263

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Freescale

Part No.	Manufacturer	RS Stock No.
MCHC11F1CFNE4	Freescale	539-0207

Infineon

Part No.	Manufacturer	RS Stock No.
SAF-C164CI-8EMCA	Infineon	417-4717

Intel

Part No.	Manufacturer	RS Stock No.
WG82574L S LBA9	Intel	682-7435

Maxim

Part No.	Manufacturer	RS Stock No.
DS5000-32-16+	Maxim	138-203
DS80C320MCG+	Maxim	138-118

Microchip

Part No.	Manufacturer	RS Stock No.
PIC BOOK 1	Bluebird Technical Press	182-7317
PIC COOKBOOK-RS	Bluebird Technical Press	204-4642
AC002021	Microchip	667-7814
AC162049	Microchip	623-0718
AC162050	Microchip	667-7817
AC162051	Microchip	623-0976
AC162053	Microchip	623-0982
AC163020	Microchip	623-1042
AC163020-2	Microchip	681-1005
AC163028	Microchip	667-7877
AC164104	Microchip	681-0850
AC164110	Microchip	667-7889
AC164122	Microchip	667-7909
AC164123	Microchip	667-7902
AC164126	Microchip	667-7918
AC164127-3	Microchip	681-0957
AC244006	Microchip	667-7930
AC244023	Microchip	681-0904
AC300020	Microchip	681-1051
AC300022	Microchip	667-7934
DM163014	Microchip	623-1064
DM163022	Microchip	623-1086
DM163024	Microchip	381-564
DM163025	Microchip	623-1070
DM163029	Microchip	623-1109
DM164120-2	Microchip	110-362
DM164120-3	Microchip	667-7959
DM164120-4	Microchip	667-7952
DM164127	Microchip	667-7965
DM164130-1	Microchip	686-8697
DM180021	Microchip	686-8679
DM183022	Microchip	623-1121
DM183032	Microchip	549-372
DM240001	Microchip	623-1143
DM240011	Microchip	549-378
DM240311	Microchip	686-8688
DM240311 & PG164130	Microchip	708-2692
DM240312	Microchip	715-4249
DM300018	Microchip	623-1159
DM300019	Microchip	667-7971
DM300024	Microchip	698-8896
DM300027	Microchip	381-548
DM320001	Microchip	435-819
DM320003-2	Microchip	686-8666
DM320004	Microchip	686-8657
DM330013	Microchip	715-4227
DM330021	Microchip	660-1268
dsPIC30F2010-20I/SPG	Microchip	622-9881
dsPIC30F2010-30I/SPG	Microchip	622-9897
dsPIC30F3012-30I/SO	Microchip	622-9910
dsPIC30F3013-30I/SO	Microchip	666-8277
dsPIC30F4011-30I/P	Microchip	622-9954
dsPIC30F4011-30I/PT	Microchip	666-8292
dsPIC30F4012-30I/SO	Microchip	622-9960
dsPIC30F4012-30I/SP	Microchip	622-9982
dsPIC30F4013-30I/P	Microchip	622-9998
dsPIC30F6012A-30I/PF	Microchip	666-8318
DSPIC33FJ128GP202-I/SP	Microchip	549-407
dsPIC33FJ128GP710A-I/PT	Microchip	666-9646
dsPIC33FJ128GP802-I/SP	Microchip	666-8334
dsPIC33FJ128MC708A-I/PT	Microchip	666-9661
dsPIC33FJ128MC802-I/SP	Microchip	666-8371
dsPIC33FJ128MC804-I/PT	Microchip	666-8378
dsPIC33FJ12MC202-I/SS	Microchip	666-8393
dsPIC33FJ16GS502-I/SO	Microchip	666-9677
dsPIC33FJ16GS504-I/PT	Microchip	666-9674
dsPIC33FJ256MC710-I/PT	Microchip	399-785
dsPIC33FJ32GP204-I/PT	Microchip	666-8419
DSPIC33FJ64GP802-I/SP	Microchip	549-401
DSPIC33FJ64MC802-I/SP	Microchip	549-356
dsPIC33FJ64MC804-I/PT	Microchip	666-8491
DV003001	Microchip	234-0568
DV164007	Microchip	615-3037
DV164035	Microchip	660-1264
DV164036	Microchip	687-2747
DV164037	Microchip	687-2741
DV164101	Microchip	615-3043
DV164102	Microchip	667-7805
DV164120	Microchip	615-3059
DV164121	Microchip	149-613
DV164122	Microchip	381-554
DV164131	Microchip	665-7416
DV164136	Microchip	681-0929
DV244005	Microchip	381-592
MA240011	Microchip	564-113
MA240014	Microchip	480-891
MA320003	Microchip	686-8669
MA330011	Microchip	564-002
MA330013	Microchip	564-062
MA330017	Microchip	564-030
MXSIGDM	Microchip	681-0890
PG164120	Microchip	381-582
PG164130	Microchip	687-2750
PIC10F200-I/P	Microchip	623-0005
PIC10F220-I/P	Microchip	623-0055
PIC10F222T-I/OT	Microchip	698-9053
PIC12C508A-04/P	Microchip	328-1707
PIC12C509A-04/P	Microchip	210-6138
PIC12F508-I/P	Microchip	623-0083
PIC12F508-I/SN	Microchip	623-0077
PIC12F509-I/P	Microchip	623-0099
PIC12F509-I/SN	Microchip	623-0106
PIC12F510-I/P	Microchip	623-0128
PIC12F519-I/P	Microchip	400-520
PIC12F609-I/P	Microchip	400-627
PIC12F615-I/P	Microchip	623-0134
PIC12F615-I/SN	Microchip	623-0156

Microchip

Part No.	Manufacturer	RS Stock No.
PIC12F629-I/P	Microchip	544-1670
PIC12F675-I/P	Microchip	544-1692
PIC12F675-I/SN	Microchip	544-1709
PIC12F683-I/P	Microchip	623-0178
PIC12F683-I/SN	Microchip	623-0190
PIC16C54-RC/P	Microchip	831-309
PIC16C54-XT/P	Microchip	831-321
PIC16C57C-04/P	Microchip	328-2283
PIC16C57-RC/P	Microchip	831-416
PIC16C57-XT/P	Microchip	831-422
PIC16C63A-20/SP	Microchip	467-1066
PIC16C64A-04/P	Microchip	328-2457
PIC16C65B-20/P	Microchip	467-1088
PIC16C710-04/P	Microchip	234-0495
PIC16C71-04/P	Microchip	831-450
PIC16C711-04/P	Microchip	234-0530
PIC16C711-20/P	Microchip	467-1101
PIC16C72A-04/SP	Microchip	328-3034
PIC16C745-I/SP	Microchip	379-2780
PIC16C77-04/P	Microchip	328-3286
PIC16C77-20/P	Microchip	467-1246
PIC16F1823-I/P	Microchip	703-7822
PIC16F1823-I/ST	Microchip	703-7810
PIC16F1827-I/SO	Microchip	698-8953
PIC16F1828-I/ML	Microchip	715-4371
PIC16F1934-I/PT	Microchip	666-9731
PIC16F1937-I/P	Microchip	666-9765
PIC16F1937-I/PT	Microchip	666-9771
PIC16F1939-I/PT	Microchip	715-4113
PIC16F54-I/P	Microchip	623-0213
PIC16F54-I/SO	Microchip	623-0229
PIC16F57-I/P	Microchip	623-0235
PIC16F616-I/SL	Microchip	400-548
PIC16F627-04/P	Microchip	379-2825
PIC16F627-20/P	Microchip	467-1252
PIC16F627A-I/P	Microchip	623-0263
PIC16F628-04/P	Microchip	379-2869
PIC16F628-04/SO	Microchip	379-2875
PIC16F628-04I/P	Microchip	467-2255
PIC16F628-20/P	Microchip	467-1296
PIC16F628A-I/P	Microchip	623-0291
PIC16F628A-I/SO	Microchip	623-0285
PIC16F630-I/P	Microchip	544-1608
PIC16F648A-I/P	Microchip	623-0320
PIC16F676-I/P	Microchip	544-1642
PIC16F684-I/P	Microchip	623-0358
PIC16F685-I/SS	Microchip	400-560
PIC16F687-I/P	Microchip	623-0386
PIC16F688-I/P	Microchip	623-0392
PIC16F688-I/SL	Microchip	623-0415
PIC16F689-I/ML	Microchip	666-8618
PIC16F690-I/P	Microchip	623-0421
PIC16F716-I/P	Microchip	400-295
PIC16F727-I/PT	Microchip	666-8680
PIC16F72-I/SP	Microchip	467-1325
PIC16F737-I/SP	Microchip	623-0443
PIC16F73-I/SP	Microchip	467-1347
PIC16F74-I/P	Microchip	467-1375
PIC16F767-I/SO	Microchip	681-1099
PIC16F77-I/L	Microchip	467-1426
PIC16F77-I/P	Microchip	467-1432
PIC16F785-I/P	Microchip	623-0459
PIC16F818-I/P	Microchip	623-0471
PIC16F819-I/P	Microchip	467-1454
PIC16F819-I/SO	Microchip	623-0465
PIC16F84-04/P	Microchip	328-3747
PIC16F84-04I/P	Microchip	328-3775
PIC16F84-10/P	Microchip	331-4633
PIC16F84A-04/P	Microchip	379-2897
PIC16F84A-04I/P	Microchip	379-2910
PIC16F84A-20/P	Microchip	379-2932
PIC16F84A-20I/P	Microchip	467-2249
PIC16F870-I/SP	Microchip	379-2960
PIC16F871-I/P	Microchip	379-3008
PIC16F872-I/SP	Microchip	379-3020
PIC16F873-04/SP	Microchip	379-3042
PIC16F873-20/SP	Microchip	467-1498
PIC16F873A-I/SP	Microchip	467-1527
PIC16F874A-I/P	Microchip	467-1583
PIC16F876-04/SO	Microchip	379-3109
PIC16F876-04/SP	Microchip	379-3115
PIC16F876-20/SO	Microchip	467-1599
PIC16F876-20/SP	Microchip	467-1606
PIC16F876A-I/SP	Microchip	467-1628
PIC16F877-04/L	Microchip	379-3137
PIC16F877-04/P	Microchip	379-3143
PIC16F877-20/L	Microchip	467-1634
PIC16F877-20/P	Microchip	467-1640
PIC16F877-20/PT	Microchip	467-1678
PIC16F877A-I/L	Microchip	467-1684
PIC16F877A-I/P	Microchip	467-1690
PIC16F877A-I/PT	Microchip	467-1707
PIC16F883-I/SO	Microchip	399-426
PIC16F883-I/SP	Microchip	399-458
PIC16F884-I/P	Microchip	399-436
PIC16F886-I/SO	Microchip	399-442
PIC16F886-I/SP	Microchip	399-432
PIC16F886-I/SS	Microchip	400-390
PIC16F887-I/P	Microchip	399-410
PIC16F887-I/PT	Microchip	399-420
PIC16F88-I/P	Microchip	623-0487
PIC16F88-I/SO	Microchip	623-0500
PIC16F916-I/SO	Microchip	400-457
PIC16F946-I/PT	Microchip	400-441
PIC16LF1936-I/SS	Microchip	666-9804
PIC16LF726-I/SS	Microchip	666-8813
PIC16LF72-I/SO	Microchip	666-8769
PIC16LF876A-I/SS	Microchip	666-8882
PIC16LF877A-I/P	Microchip	466-2797
PIC16LF88-I/P	Microchip	681-1106
PIC18C252-I/SP	Microchip	379-3244
PIC18F1220-I/P	Microchip	467-1937
PIC18F1320-I/P	Microchip	467-1965
PIC18F1320-I/SO	Microchip	467-1971
PIC18F13K50-I/P	Microchip	564-028
PIC18F13K50-I/SO	Microchip	564-090
PIC18F14K22-I/P	Microchip	666-9848
PIC18F14K50-I/P	Microchip	564-157
PIC18F2220-I/SP	Microchip	623-0538
PIC18F2321-I/SO	Microchip	400-491
PIC18F23K20-I/ML	Microchip	687-8584
PIC18F2420-I/SP	Microchip	623-0601
PIC18F2431-I/SP	Microchip	623-0594
PIC18F2455-I/SO	Microchip	623-0617
PIC18F2455-I/SP	Microchip	623-0623
PIC18F2480-I/SO	Microchip	623-0645
PIC18F248-I/SP	Microchip	467-2025
PIC18F2520-I/SP	Microchip	623-0667
PIC18F2525-I/SP	Microchip	623-0689
PIC18F252-I/SP	Microchip	467-2047

Microchip

Part No.	Manufacturer	RS Stock No.
PIC18F2550-I/SO	Microchip	623-0702
PIC18F2550-I/SP	Microchip	623-0724
PIC18F258-I/SP	Microchip	467-2069
PIC18F2620-I/SO	Microchip	623-0746
PIC18F2620-I/SP	Microchip	623-0768
PIC18F26K20-I/SO	Microchip	564-034
PIC18F27J53-I/SP	Microchip	703-7661
PIC18F4420-I/P	Microchip	623-0774
PIC18F442-I/P	Microchip	467-2081
PIC18F4431-I/P	Microchip	623-0780
PIC18F4450-I/P	Microchip	400-328
PIC18F4455-I/P	Microchip	623-0796
PIC18F4520-I/P	Microchip	623-0819
PIC18F4523-I/P	Microchip	400-324
PIC18F4523-I/PT	Microchip	400-356
PIC18F4525-I/P	Microchip	623-0831
PIC18F452-I/P	Microchip	467-2126
PIC18F452-I/PT	Microchip	467-2132
PIC18F4550-I/P	Microchip	623-0803
PIC18F4550-I/PT	Microchip	623-0825
PIC18F4553-I/P	Microchip	400-318
PIC18F4580-I/P	Microchip	623-0853
PIC18F4585-E/PT	Microchip	666-9059
PIC18F4585-I/P	Microchip	666-9052
PIC18F458-I/L	Microchip	467-2148
PIC18F458-I/P	Microchip	467-2154
PIC18F45J50-I/PT	Microchip	667-0059
PIC18F45K20-I/P	Microchip	564-232
PIC18F4620-E/PT	Microchip	552-895
PIC18F4620-I/P	Microchip	623-0847
PIC18F4620-I/PT	Microchip	681-1171
PIC18F4685-E/PT	Microchip	666-9080
PIC18F4685-I/P	Microchip	400-942
PIC18F4685-I/PT	Microchip	400-918
PIC18F46K20-E/ML	Microchip	666-9093
PIC18F6520-I/PT	Microchip	698-8912
PIC18F6720-I/PT	Microchip	467-2198
PIC18F6722-I/PT	Microchip	400-867
PIC18F67J60-I/PT	Microchip	400-766
PIC18F8493-I/PT	Microchip	666-9141
PIC18F8720-I/PT	Microchip	467-2205
PIC18F8722-I/PT	Microchip	623-0869
PIC18F87J60-I/PT	Microchip	400-778
PIC18F87J93-I/PT	Microchip	687-8547
PIC18F97J60-I/PF	Microchip	698-8919
PIC18F97J60-I/PT	Microchip	400-784
PIC18LF252-I/SP	Microchip	623-0881
PIC18LF2580-I/SO	Microchip	666-9318
PIC18LF4550-I/P	Microchip	666-9352
PIC18LF458-I/P	Microchip	466-2832
PIC18LF4620-I/P	Microchip	666-9365
PIC18LF6723-I/PT	Microchip	666-9399
PIC24FJ128GA010-I/PT	Microchip	400-794
PIC24FJ16GA002-I/SP	Microchip	400-823
PIC24FJ256GA106-I/PT	Microchip	666-9472
PIC24FJ256GA108-I/PT	Microchip	666-9481
PIC24FJ256GB106-I/PT	Microchip	575-046
PIC24FJ256GB108-I/PT	Microchip	575-030
PIC24FJ64GA002-I/ML	Microchip	666-9517
PIC24FJ64GB002-I/SP	Microchip	703-7602
PIC24FJ64GB106-I/PT	Microchip	666-9529
PIC24HJ128GP202-I/SP	Microchip	549-413
PIC24HJ256GP610-I/PT	Microchip	399-690
PIC24HJ64GP202-I/SP	Microchip	666-9598
PIC32MX340F128L-80I/PT	Microchip	666-9627
PIC32MX360F512L-80I/PT	Microchip	435-790
PIC32MX440F512H-80I/PT	Microchip	666-9624
PIC32MX460F512L-80I/PT	Microchip	476-545
PIC32MX575F512L-80I/PT	Microchip	687-9326
PIC32MX695F512L-80I/PT	Microchip	704-7696
PIC32MX795F512H-80I/PT	Microchip	687-9344
SW006011	Microchip	623-1171
SW006012	Microchip	623-1165
UK003010	Microchip	623-1187

NXP

Part No.	Manufacturer	RS Stock No.
LPC2148FBD64,151	NXP	476-208
LPC2212FBD144/00	NXP	476-268
P80C31SBPN,112	NXP	302-1808
P80C32SBAA,512	NXP	302-1757
P80C32SBPN,112	NXP	302-1779
P80C51FA-4A,512	NXP	483-6948
P80C552EFA/08,512	NXP	485-5927
P87C51FA-4A,512	NXP	302-1684
P87C51FA-4N,112	NXP	302-1690
P87C51FB-4A,512	NXP	302-1707
P87C51FB-4N,112	NXP	302-1713
P87C51SBAA,512	NXP	302-1729
P87C51SBPN,112	NXP	302-1735
P87C552SBAA,512	NXP	483-7020
P87LPC764BN	NXP	355-7341

Olimex

Part No.	Manufacturer	RS Stock No.
ARM-USB-OCD	Olimex	705-5032
ARM-USB-TINY	Olimex	705-5041
AVR-GSM	Olimex	705-5120
AVR-ISP500	Olimex	705-5111
AVR-MT128	Olimex	705-5145
AVR-P40N-8535-8MHz	Olimex	705-5136
AVR-USB-STK	Olimex	705-5133
ENC28J60-H	Olimex	705-5259
LPC-E2468	Olimex	705-5079
LPC-P2148	Olimex	705-5057
MOD-POE	Olimex	705-5252
MSP430-JTAG	Olimex	705-5149
MSP430-P1611	Olimex	705-5186
PIC-MAXI-WEB	Olimex	705-5218
PIC-MCP-USB	Olimex	705-5195
PIC-MICRO-WEB	Olimex	705-5215
PIC-P40-20MHz	Olimex	705-5234
PIC-USB-4550	Olimex	705-5246
STM32-103STK	Olimex	705-5098
STM32-P103	Olimex	705-5094
TMS320-P28016	Olimex	705-5105
TSM320-JTAG-USB	Olimex	705-5101

Parallax

Part No.	Manufacturer	RS Stock No.
28017	Parallax Inc	666-6631
29123	Parallax Inc	666-6637
30056	Parallax Inc	666-6643
32201	Parallax Inc	405-600
32212	Parallax Inc	405-616
32300	Parallax Inc	405-571

Parallax

Part No.	Manufacturer	RS Stock No.
130-32212	Parallax Inc	405-650
BS2-IC	Parallax Inc	405-654

Rabbit

Part No.	Manufacturer	RS Stock No.
101-0561	Rabbit Semiconductor	436-452
101-1146	Rabbit Semiconductor	436-529
20-101-0674	Rabbit Semiconductor	436-563

Ramtron

Part No.	Manufacturer	RS Stock No.
FM1110-QG	Ramtron International	716-5722
FM1112-QG	Ramtron International	716-5725
FM3130-G	Ramtron International	716-5753
FM32274-G	Ramtron International	716-5775
FM32276-G	Ramtron International	716-5779
FM32L276-G	Ramtron International	716-5794
FM32L278-G	Ramtron International	716-5797

Renesas

Part No.	Manufacturer	RS Stock No.
E8A	Renesas	259-378
HD6475328CP10-V	Renesas	641-2314
HD6477034F20-V	Renesas	546-7650
HD64F2357F20-V	Renesas	601-6786
HD64F2633F16V	Renesas	242-885
HD64F3048BTE25V	Renesas	243-018
HD64F3052BF25V	Renesas	530-9217
HD64F3687FP-V	Renesas	546-7852
HD64F3694FY-V	Renesas	546-7903
HD64F38086RH10V	Renesas	243-119
HD64F7044F28-V	Renesas	641-2061
HD64F7144F50-V	Renesas	641-2106
R0K33062PS000BE	Renesas	379-561
R5F21114FP#U0	Renesas	621-0871
R5F211B4SP#U0	Renesas	621-1060

Silicon Laboratories

Part No.	Manufacturer	RS Stock No.
C8051F020DK	Silicon Laboratories	526-9355
C8051F120DK	Silicon Laboratories	526-9428
C8051F121-GQ	Silicon Laboratories	526-9175
C8051F220-GQ	Silicon Laboratories	526-9096
C8051F310DK	Silicon Laboratories	526-9456
C8051F310-GQ	Silicon Laboratories	526-8885
C8051F311-GM	Silicon Laboratories	526-8908
C8051F320DK	Silicon Laboratories	526-9462
C8051F330-GM	Silicon Laboratories	526-8891
C8051F350DK	Silicon Laboratories	526-9484

ST Microelectronics

Part No.	Manufacturer	RS Stock No.
STEVAL-ILL030V1	STMicroelectronics	721-1320
STEVAL-ILL031V2	STMicroelectronics	721-1333
STEVAL-IPC002V1	STMicroelectronics	726-3719
STM3210B-PRIMER	STMicroelectronics	402-291
STM3210B-SK/HIT	STMicroelectronics	402-318
STM3210B-SK/RAI	STMicroelectronics	402-302
STM3210E-EVAL	STMicroelectronics	714-0439
STM32F100C4T6B	STMicroelectronics	723-8861
STM32F100C6T6B	STMicroelectronics	723-8870
STM32F100C8T6B	STMicroelectronics	723-8873
STM32F100CBT6B	STMicroelectronics	723-8877
STM32F100R4T6B	STMicroelectronics	723-8886
STM32F100R6T6B	STMicroelectronics	723-8889
STM32F100R8T6B	STMicroelectronics	723-8883
STM32F100RBH6B	STMicroelectronics	723-8892
STM32F100RBT6B	STMicroelectronics	723-8895
STM32F100V8T6B	STMicroelectronics	723-8899
STM32F100VBT6B	STMicroelectronics	723-8909
STM32F100VCT6B	STMicroelectronics	723-8902
STM32F100VET6B	STMicroelectronics	723-8906
STM32F100ZCT6B	STMicroelectronics	723-8915
STM32F100ZDT6B	STMicroelectronics	723-8918
STM32F100ZET6B	STMicroelectronics	723-8912
STM32F101C8U6	STMicroelectronics	723-8921
STM32F101R4T6A	STMicroelectronics	723-8924
STM32F101R6T6A	STMicroelectronics	723-8928
STM32F101RCT6	STMicroelectronics	723-8937
STM32F101RDT6	STMicroelectronics	723-8930
STM32F101T4U6A	STMicroelectronics	723-8934
STM32F101VDT6	STMicroelectronics	723-8946
STM32F101ZCT6	STMicroelectronics	723-8940
STM32F101ZDT6	STMicroelectronics	723-8959
STM32F101ZET6	STMicroelectronics	723-8952
STM32F102C4T6A	STMicroelectronics	723-8956
STM32F102C6T6A	STMicroelectronics	723-8965
STM32F102C8T6	STMicroelectronics	723-8968
STM32F102CBT6	STMicroelectronics	686-8587
STM32F102R4T6A	STMicroelectronics	723-8962
STM32F102R6T6A	STMicroelectronics	723-8971
STM32F102R8T6	STMicroelectronics	723-8974
STM32F103C4T6A	STMicroelectronics	723-8978
STM32F103C6T6A	STMicroelectronics	723-8987
STM32F103C6T7A	STMicroelectronics	723-8980
STM32F103C6U6A	STMicroelectronics	723-8984
STM32F103C8T6	STMicroelectronics	402-279
STM32F103C8T7	STMicroelectronics	723-8993
STM32F103CBT6	STMicroelectronics	402-273
STM32F103R4H6A	STMicroelectronics	723-8990
STM32F103R4T6A	STMicroelectronics	723-9003
STM32F103R6H6A	STMicroelectronics	723-9006
STM32F103R6T7A	STMicroelectronics	723-9019
STM32F103R8T7	STMicroelectronics	723-9025
STM32F103RBH6	STMicroelectronics	723-9028
STM32F103RBT6	STMicroelectronics	402-251
STM32F103RBT7	STMicroelectronics	723-9022
STM32F103RCT7	STMicroelectronics	723-9031
STM32F103RET6	STMicroelectronics	686-8574
STM32F103VBT6	STMicroelectronics	402-245
STM32F103ZET6	STMicroelectronics	686-8596
STM32VLDiscovery	STMicroelectronics	727-6526
STM8L-Discovery	STMicroelectronics	727-6535
STM8S105C6T6	STMicroelectronics	686-8607
STM8S-DISCOVERY	STMicroelectronics	705-6031
STX-RLINK	STMicroelectronics	629-1224
UPSD3354D-40T6	STMicroelectronics	526-7090

Texas Instruments

Part No.	Manufacturer	RS Stock No.
EZ430-T2012	Texas Instruments	698-6887

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Texas Instruments

Manufacturers

Part No.	Manufacturer	RS Stock No.
LM3S8962-IQC50	Texas Instruments	698-6994
MSP430F1232IRHBT	Texas Instruments	709-8739
MSP430F1611IPM	Texas Instruments	219-673
MSP430F169IPM	Texas Instruments	619-5794
MSP430F2132IPW	Texas Instruments	662-4719
MSP430F2272IDA	Texas Instruments	709-2087
MSP430F247TPM	Texas Instruments	662-5100
MSP430F2618TPM	Texas Instruments	662-5107
MSP430F449IPZ	Texas Instruments	218-315
MSP-EXP430F5438	Texas Instruments	698-6953
MSP-EXP430G2	Texas Instruments	712-2649
MSP-FET430U64	Texas Instruments	698-6919
MSP-FET430U64A	Texas Instruments	698-6913
MSP-FET430UIF	Texas Instruments	619-5823
TMDSDOCK28335	Texas Instruments	663-3139
TMS320C31PQL40	Texas Instruments	204-6424
TMS320F28035PNT	Texas Instruments	698-7013
TMS320F2808PZA	Texas Instruments	619-5659
TMS320VC5402ZGU100	Texas Instruments	662-5084
TMS370C742AFNTG4	Texas Instruments	177-7981

Zilog

Manufacturers

Part No.	Manufacturer	RS Stock No.
EZ80F910200KITG	Zilog	660-0693
EZ80F910300ZCOG	Zilog	660-0697
EZ80F91AZ050SG	Zilog	660-0710
Z8018008VSG	Zilog	625-8801
Z8018010PSG	Zilog	625-9062
Z84C0008PEG	Zilog	625-8918
Z84C0010PEG	Zilog	625-9078
Z86E0812PSG1866	Zilog	625-8520
Z86E4016PSG	Zilog	625-9258
Z86E6116PSG	Zilog	660-0873
Z8F0422PJ020SG	Zilog	625-9444
Z8F0422SJ020SG	Zilog	660-0791
Z8F04A28100KITG	Zilog	660-0808
Z8F0822PJ020SG	Zilog	625-9472
Z8F0822SJ020SG	Zilog	625-9488
Z8F64200100KITG	Zilog	469-7692
Z8F6421AN020SG	Zilog	660-0836
Z8F6421PM020SG	Zilog	625-9321
Z8F6421VN020SG	Zilog	625-9337
Z8F6422VS020SG	Zilog	625-9315
Z8F6423FT020SG	Zilog	625-9309
ZUSBSC00100ZACG	Zilog	660-0861

Micro Peripheral Interface

Manufacturers

Part No.	Manufacturer	RS Stock No.
ADM694ANZ	Analog Devices	427-389
ADM706SARZ	Analog Devices	412-573
ADM708ARZ	Analog Devices	412-608
HCTL-2022	Avago Technologies	496-5642
HCTL-2032-SC	Avago Technologies	496-5658
DS12C887+	Dallas Semiconductor	139-600
DS1305+	Dallas Semiconductor	540-4766
DS1306+	Dallas Semiconductor	540-2710
DS1307Z+	Dallas Semiconductor	540-4772

Micro Peripheral Interface

Manufacturers

Part No.	Manufacturer	RS Stock No.
RTC-72423B	Epson Toyocom	667-6224
RTC-8564JE, (B)	Epson Toyocom	667-6252
EVAL232R	FTDI Chip	406-556
FT2232D	FTDI Chip	406-578
FT2232H MINI MODULE	FTDI Chip	687-7768
FT2232HL	FTDI Chip	687-7720
FT2232HQ	FTDI Chip	687-7724
FT232BL	FTDI Chip	406-574
FT232RL	FTDI Chip	406-580
FT245BL	FTDI Chip	687-7727
FT245RL	FTDI Chip	406-540
FT4232HL	FTDI Chip	687-7733
MM232R	FTDI Chip	406-562
TTL-232R-3V3	FTDI Chip	429-307
TTL-232R-3V3-AJ	FTDI Chip	687-7783
TTL-232R-3V3-PCB	FTDI Chip	429-284
TTL-232R-3V3-WE	FTDI Chip	429-303
TTL-232R-5V	FTDI Chip	687-7770
TTL-232R-5V-AJ	FTDI Chip	687-7774
TTL-232R-5V-WE	FTDI Chip	687-7786
TTL-232R-PCB	FTDI Chip	429-278
UB232R	FTDI Chip	429-262
UC232R-10	FTDI Chip	429-252
UM232R	FTDI Chip	406-568
UM245R	FTDI Chip	406-584
US232R-10	FTDI Chip	429-274
US232R-100-BLK	FTDI Chip	687-7806
US232R-100-BST	FTDI Chip	687-7796
US232R-10-BST	FTDI Chip	687-7792
USB-COM232-Plus1	FTDI Chip	687-7730
USB-COM232-Plus2	FTDI Chip	687-7749
USB-COM232-Plus4	FTDI Chip	687-7742
USB-COM422-Plus2	FTDI Chip	687-7761
USB-COM485-Plus1	FTDI Chip	687-7746
USB-COM485-Plus4	FTDI Chip	687-7758
USB-RS232-PCBA	FTDI Chip	687-7825
USB-RS232-WE-1800-BT 0.0	FTDI Chip	687-7828
USB-RS232-WE-1800-BT 5.0	FTDI Chip	687-7821
USB-RS232-WE-5000-BT 0.0	FTDI Chip	687-7815
USB-RS232-WE-5000-BT 5.0	FTDI Chip	687-7819
USB-RS422-WE-1800-BT	FTDI Chip	687-7831
USB-RS485-PCBA	FTDI Chip	687-7837
USB-RS485-WE-1800-BT	FTDI Chip	687-7834
VDIP1	FTDI Chip	406-552
VDIP2	FTDI Chip	429-280
VDRIVE2	FTDI Chip	429-296
VF2F2	FTDI Chip	429-268
VMUSIC2	FTDI Chip	429-290
VNC1L-1A	FTDI Chip	406-546
CP82C55A-5Z	Intersil	496-763
IP82C54-10Z	Intersil	704-4675
ISL1208IU8Z	Intersil	516-479
DS12887+	Maxim	133-781
DS1302+	Maxim	540-2704
DS1302Z+	Maxim	540-4750
DS1307+	Maxim	540-2726
DS1687-5+	Maxim	139-559
MAX7301AAX+	Maxim	622-9500
GPIODM-KPLCD	Microchip	681-0982
MCP2200EV-VCP	Microchip	699-0448

Micro Peripheral Interface

Manufacturers

Part No.	Manufacturer	RS Stock No.
MCP23008-E/P	Microchip	403-563
MCP23016-I/SP	Microchip	681-1143
MCP23017-E/SP	Microchip	403-806
MCP23018-E/SP	Microchip	669-6455
MCP23S08-E/P	Microchip	403-636
MCP23S17-E/SP	Microchip	403-686
ISP1161ABD	NXP	484-0357
P82B715PN,112	NXP	821-784
P82B715TD,112	NXP	273-539
P82B96PN,112	NXP	483-6954
P82B96TD,112	NXP	483-6960
PCA9545BPW,118	NXP	510-718
PCA9554PW,112	NXP	483-7187
PCA9555D,112	NXP	483-7193
PCA9555PW,112	NXP	483-7222
PCF8563P/F4,112	NXP	483-7288
PCF8574AP,112	NXP	427-786
PCF8574P,112	NXP	427-770
PCF8574T/3,512	NXP	510-780
PCF8575TS/1,112	NXP	436-8344
PCF8583T/5,512	NXP	483-7323
MAX809TTRG	ON Semiconductor	688-8803
MC33064D-5R2G	ON Semiconductor	688-8812
MC33064P5G	ON Semiconductor	516-5017
MC33064P-5G	ON Semiconductor	463-224
MC33164D-5R2G	ON Semiconductor	688-8828
MC34064D-5R2G	ON Semiconductor	688-8825
MC34064P5G	ON Semiconductor	516-5067
FM1106	Ramtron International	394-891
FM33256-G	Ramtron International	394-908
CP2102-GM	Silicon Laboratories	526-8841
CP2103-GM	Silicon Laboratories	526-9204
COM20020I-DZD	SMSC	672-6767
USB2241-AEZG	SMSC	672-6880
ISP1521BEUM	ST-Ericsson	671-6726
ISP1583BSUM	ST-Ericsson	671-6714
ISP1760BEUM	ST-Ericsson	671-6720
PDIUSBD12PW	ST-Ericsson	483-7339
M41ST87WMX6	STMicroelectronics	624-8393
M41ST87YMX6	STMicroelectronics	686-5046
M41T00M6E	STMicroelectronics	380-2168
M41T11M6E	STMicroelectronics	686-5049
M41T81SM6E	STMicroelectronics	624-8444
M48T128Y-70PM1	STMicroelectronics	714-7294
M48T35Y-70PC1	STMicroelectronics	624-8466
M48T512Y-70PM1	STMicroelectronics	714-7301
STM1061N22WX6F	STMicroelectronics	686-4793
STM6720TGWB6F	STMicroelectronics	624-8292
STM706SM6E	STMicroelectronics	624-8359
STM812SW16F	STMicroelectronics	686-1609
STM818MM6E	STMicroelectronics	686-1769
BQ3287AMT-SB2	Texas Instruments	660-6320
BQ3287MT-SB2	Texas Instruments	660-6336
BQ4287MT-SB2	Texas Instruments	660-6367
CP82C55AZ	Texas Instruments	426-991
PCF8574DW	Texas Instruments	517-0671
PCF8574N	Texas Instruments	517-0687
PCI2040PGEG4	Texas Instruments	662-5179
TLC7701QP	Texas Instruments	662-4898
TPS3510P	Texas Instruments	662-4942

Micro Peripheral Interface

Manufacturers

Part No.	Manufacturer	RS Stock No.
TPS3801T50DCKRG4	Texas Instruments	662-4191
TPS3803-01DCKRG4	Texas Instruments	662-4208
TPS3809K33DBVTG4	Texas Instruments	662-4227
TPS382450DBVTG4	Texas Instruments	527-316
TPS3825-33DBVT	Texas Instruments	517-1135
TPS3828-33DBVT	Texas Instruments	517-3046
TPS3836K33DBV	Texas Instruments	517-1157
Z0853006PSG	Zilog	625-8788
Z0853606PSG	Zilog	625-8794
Z84C2006PEG	Zilog	625-9084
Z84C3006PEG	Zilog	625-9090
Z84C4006PEG	Zilog	660-0763
Z84C4008PEG	Zilog	625-9040
Z84C9008VSG	Zilog	625-8839
Z8523020VSG	Zilog	660-0760
Z85C3008PSG	Zilog	625-8895

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USB-based ICE for JTAG processors & DSPs

This USB-based emulator provides an easy, portable, non-intrusive, target-based debugging solution for Analog Devices JTAG processors and DSPs.

- USB 1.1 interface enabling download speeds of up to 150Kbyte/s
- +1.8V, +2.5V and +3.3V compliant and tolerant
- Support for all ADI JTAG processors and DSPs

ANALOG DEVICES

698-1194	USB based Emulator	1+	S$	2160·00

Blackfin® USB-LAN EZ-Extender board

The Blackfin® USB-LAN EZ-Extender daughter board allows developers to connect to the Asynchronous Memory Bus on the ADSP-BF533 EZ-Kit Lite, ADSP-BF537 EZ-Kit Lite and ADSP-BF561 EZ-Kit Lite. The EZ-Extender has peripherals that support USB 2.0 and 10/100Base-T Ethernet.

- USB 2.0 interface with Netchip 2272 device
- No power supply required
- Ethernet Interface with LAN 91C111 device

ANALOG DEVICES

698-1198	USB-LAN extender board	1+	S$	415·00

ADSP-BF537 Blackfin® EZ-Kit Lite

The ADSP-BF537 EZ-Kit Lite provides developers with a cost-effective method for evaluation of the ADSP-BF537 Blackfin® Processor and its rich set of system peripherals

- ADSP-BF537 Blackfin 600MHz DSP
- 64Mbyte SDRAM, 4Mbyte Flash memory
- SMSC LAN83C185 10/100Base-T PHY with RJ-45 connector

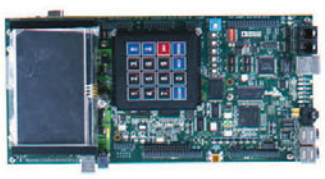
ANALOG DEVICES

698-1172	Evaluation Kit for ADSP-BF537	1+	S$	630·00

ADSP-BF548 Blackfin® EZ-Kit Lite

The ADSP-BF548 EZ-KIT Lite provides developers with a cost-effective method for initial evaluation of the ADSP-BF54x Blackfin® Processors via a USB-based, PC-hosted tool set.

- ADSP-BF548 600MHz DSP
- 64Mbyte DDR SDRAM
- 32Mbyte Burst Flash memory
- 2Gbit NAND Flash memory
- 16Mbit serial SPI Flash memory



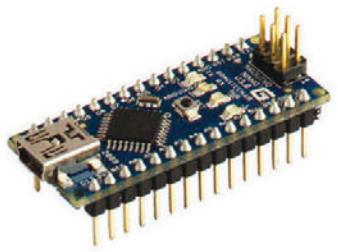
ANALOG DEVICES

698-1176	Evaluation Kit for ADSP-BF538	1+	S$	1850·00

Arduino Nano 328 MCU Board

The Arduino Nano is a small, complete, and breadboard-friendly board based on the ATmega328. It has similar functionality to the Arduino Duemilanove, but in a DIP module package.

- ATmega328 microcontroller with pre-programmed bootloader
- Input Voltage (recommended): +7 to +12V
- Input Voltage (limits): +6 to +20V



Arduino

696-1667	ATmega328 MCU DIP module	1+	S$	70·50

Arduino XBee® Adapter Plug-in Module

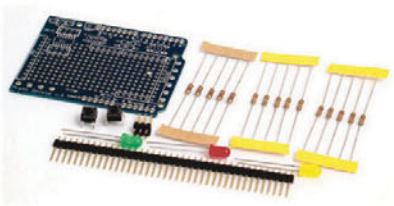
This Xbee® adapter shield allows an Arduino board to communicate wirelessly using Zigbee. It can be used as a serial/USB replacement or you can put it into a command mode and configure it for a variety of broadcast and mesh networking options.

Arduino

696-1670	XBee® Adapter Plug-in Module	1+	S$	38·00

Arduino Proto Plug-in Module Kit

"The Proto Shield board allows you to move your projects from a breadboard to an Arduino-compatible PCB.
The Proto Shield kit contains a number of discrete components in addition to the board."

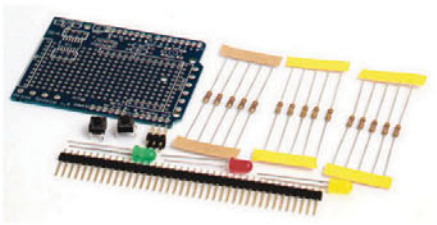


Arduino

696-1673	Proto shield board for Arduino	1+	S$	9·90
696-1677	Proto shield KIT for Arduino	1+	S$	9·90

Arduino Proto Plug-in Module Kit (Mega)

The MEGA Proto Shield board allows you to move your projects from a breadboard to an Arduino MEGA-compatible PCB. The MEGA Proto Shield kit contains a number of discrete components in addition to the board.



Arduino

696-1683	Proto shield board for Arduino MEGA	1+	S$	8·95
696-1692	Proto shield KIT for Arduino MEGA	1+	S$	22·90

Arduino Base Component Kit

Kit Base (without Arduino board) is a selection of the components necessary to participate in an Arduino Workshop, all in a useful portable box.

Arduino

696-1689	Workshop Kit for Arduino	1+	S$	74·00

Arduino project box

Plastic flame-retardant box that takes an Arduino board (Duemilanove-Diecimila-NG or MEGA), an Ethernet shield and a battery.

- Made from PC-ABS V0
- Dimensions: 112 x 62 x 32mm

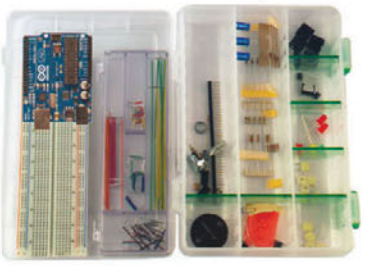
Arduino

715-4088	Project Box for Arduino	1+	S$	18·10

Arduino Uno Workshop Kit

The Uno Workshop Kit contains an Arduino board and a selection of all the components / parts necessary to participate in an Arduino Workshop, all contained in a useful component case.

- For list of kit contents visit RS online



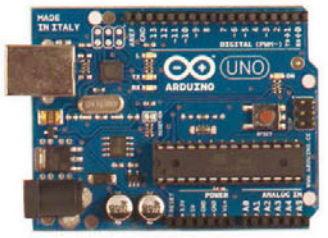
Arduino

715-4097	Workshop Kit with Arduino Uno	1+	S$	102·00

Arduino Uno Atmega 328 MCU board

The Arduino Uno is a microcontroller board based on the ATmega328. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with a AC-to-DC adapter or battery to get started.

- ATmega328 16MHz
- 32KB Flash memory
- 2KB RAM
- 1KB EEPROM



Arduino

715-4081	Arduino Uno Atmel Atmega 328 MCU board	1+	S$	40·30

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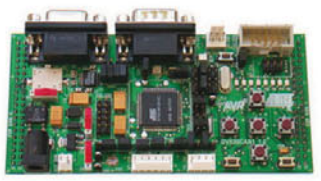
ATDVK90CAN1 Development Kit

The ATDVK90CAN1 Development Kit is designed to give designers a quick start to develop code on the AT90CAN128 AVR microcontroller.

- AT90CAN128 TQFP device (3 or 5V)
- AVR Studio® software interface
- STK500 compatible
- ISP connector for on-chip ISP
- JTAG connector
- Serial interfaces: Two RS-232C, SPI, TWI, CAN, LIN



696-2399	ATDVK90CAN1 Development Kit	1+	S$	179·00

AVRISP mkII In-System Programmer

AVR In-System Programmer mkII is used for field upgrades of AVR Flash microcontrollers.

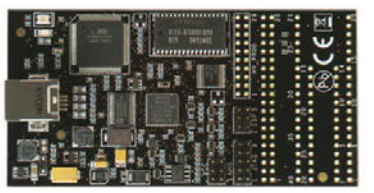
- Supports all 8-bit AVR devices with ISP Interface
- AVR Studio® compatible (AVR Studio 4.12 or later)
- Programs both Flash and EEPROM
- Supports fuses and lock-bit programming
- Supports target voltages from +1.8 to +5.5V
- PC communication and power by USB – No external power supply required

696-2563	AVRISP mkII In-System Programmer	1+	S$	54·50

AVR Dragon Debug/ Programmer

The AVR Dragon supports all programming and on-chip debugging modes for all AVR MCUs. It can be used with an external target board as well as an on-board prototype area, allowing programming and debugging without additional hardware.

- In-System Programming (ISP) 3-wire AVR programming protocol
- Parallel Programming and High-Voltage Serial Programming
- debugWIRE One-wire AVR debugging protocol
- JTAG and debugWIRE emulation support for devices with 32KB or less Flash memory
- JTAG Programming 4-wire IEEE® 1149.1 compliant JTAG interface



696-2566	AVR Dragon Debug/Programmer	1+	S$	86·00

AVR STK500 Starter Kit

A starter kit and development system for Atmel's AVR® 8-Bit RISC Flash microcontrollers. The STK500 gives designers a quick start to develop code on the AVR combined with features for using the starter kit to develop prototypes and test new designs. It interfaces with Atmel's AVR Studio® and is compatible with the STK501 expansion module which adds 64-pin support

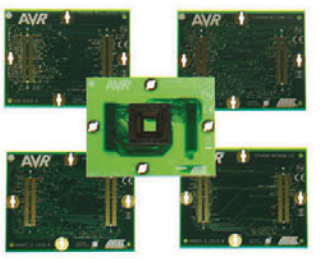
- RS-232 Interface to PC for programming and control
- Sockets for 8-pin, 20-pin, 28-pin, and 40-pin AVR devices
- Parallel and serial high-voltage programming of AVR devices
- Serial In-System Programming (ISP) of AVR devices

384-935	AVR STK500 Starter Kit	1+	S$	126·00

ATSTK600-TQFP144 Socket and Adapter Boards

The STK600-TQFP144 package contains a socket board and adapter boards for 144-pin TQFP 0.5mm pitch devices, and is an expansion module for the STK600 Starter Kit.

- Socket cards route each pin from the IC socket to separate pins on the spring loaded
- connectors on the bottom side, facing the routing card



696-2597	Socket and Adapter Boards	1+	S$	188·50

AVR JTAGICE mkII Debug/ Programmer

The JTAGICE mkII is a powerful development tool for On-chip Debugging of all AVR 8-bit RISC MCUs and AVR32 32-bit DSP/ MCUs with an IEEE 1149.1 compliant JTAG interface.

- Supports devices with debugWIRE Interface
- Supported by AVR Studio and AVR32 Studio
- USB or RS-232 communication with PC
- Powered by USB port

696-2434	AVR JTAGICE mkII Debug/Programmer	1+	S$	520·00

AVR ONE! Debug/Programmer

The AVR® ONE! is a powerful development tool for on-chip debugging and programming of all AVR32 and AVR XMEGA devices.

- Debug interfaces: JTAG (IEEE 1149.1), debugWire, PDI, Nexus (IEEE-ISTO 5001(TM)-2003) auxiliary interface for high-speed trace
- Programming interfaces: ISP, JTAG and PDI
- Interfaces with AVR32 Studio 2 and newer, and AVR Studio 4.15 and newer

696-2437	AVR ONE! Debug/Programmer	1+	S$	1030·00

ATEVK1104 Evaluation Kit

The AVR32 EVK1104 is an evaluation kit which combines Atmel's AVR32 microcontroller with an unrivalled selection of communication interfaces.

- AT32UC3A3256 microcontroller
- USB On-the-Go
- SD/MMC Card socket
- Stereo 16-bit DAC

696-2452	ATEVK1104 Evaluation Kit	1+	S$	295·00

ATEVK1105 Evaluation Kit

The AVR32 EVK1105 is an evaluation kit for the AT32UC3A0512, which demonstrates Atmel's AVR32 microcontroller in Hi-Fi audio decoding and streaming applications.

- Reference hardware and software for generic MP3 player docking stations

696-2440	ATEVK1105 Evaluation Kit	1+	S$	310·00

ATNGW100 Network Gateway Kit

The NGW100 kit combines Atmel's AVR32 Digital Signal Processor CPU with an unrivalled selection of communication interfaces. It is designed specifically to allow you to explore network applications under Linux. It also provides a USB and RS-232 interface and so is not limited to solely network based projects.

- AT32AP7000 processor, 2x Ethernet port, SD/MMC card reader, USB interface, JTAG interface, RS-232 interface
- Preloaded with Linux and shipped with I/O interface drivers that can be called from user's code

696-2544	ATNGW100 Network Gateway Kit	1+	S$	188·50

AT91SAM7S-EK Evaluation Kit

The AT91SAM7S-EK evaluation board enables the evaluation of, and code development for applications running on an AT91SAM7Sxx 32-bit ARM7 microcontroller device. An AT91 software package with C and assembly listings is also provided. This allows the user to begin evaluating the AT91 ARM® Thumb® 32-bit microcontroller quickly.

- Fitted with an AT91SAM7S256 (64-pin PQFP package)
- USB interface, 2x RS232 port
- JTAG/ICE debug interface
- Four buffered analogue inputs
- Four general-purpose LEDs and pushbuttons
- Expansion connector
- Prototyping area

696-2370	AT91SAM7S-EK Evaluation Kit	1+	S$	193·00

AT91SAM7SE-EK Evaluation Kit

The AT91SAM7SE-EK evaluation board enables evaluation and code development of applications running on an AT91SAM7SE 32-bit ARM7 microcontroller device. An AT91 software package with C and assembly listings is also provided. This allows the user to begin evaluating the AT91 ARM® Thumb® 32-bit microcontroller quickly.

- ATmega328 16MHz
- 32KB Flash memory
- 2KB RAM
- 1KB EEPROM

696-2358	AT91SAM7SE-EK Evaluation Kit	1+	S$	385·00

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AT91SAM7X-EK Evaluation Kit

The AT91SAM7X-EK kit enables evaluation and code development of applications running on an AT91SAM7X and AT91SAM7XC 32-bit ARM7 MCU. An AT91 software package with C and assembly listings is included which allows the user to begin evaluating the AT91 ARM® Thumb® 32-bit MCU quickly.

- Fitted with AT91SAM7X256 (100-pin LQFP package)
- USB, DBGU, RS-232 and CAN serial comms ports
- JTAG/ICE debug interface connector
- MII Ethernet 100-base TX with auto MDIX capability
- Buffered analogue input and PWM output
- DataFlash® card slot
- Atmel serial DataFlash
- Footprint for Atmel Serial EEPROM

ALTERA

696-2355	AT91SAM7X-EK Evaluation Kit	1+	S$	435·00

AT91SAM-ICE JTAG Emulator

SAM-ICE is a JTAG emulator designed for all Atmel AT91 ARM7/ARM9/Cortex-M3 cores.

- Any ARM7/ARM9/Cortex-M3 Atmel core supported, including Thumb™ mode
- Serial Wire Debug (SWD) and Viewer (SWV) supported since SAM-ICE hardware version 6
- J-Link compatible mode
- RDI compliant
- Download speed up to 720KByte/s
- No power supply required (powered through USB port)
- Auto speed recognition; Max. JTAG speed up to 12MHz
- All JTAG signals can be monitored, target voltage can be measured
- Fully plug-and-play compatible

ALTERA

696-2377	AT91SAM-ICE JTAG Emulator	1+	S$	193·00

SAM3U-EK Evaluation Kit

The SAM3U-EK kit enables evaluation and code development of applications running on an ATSAM3U device.

- SAM3U4E microcontroller (144-pin LQFP package)
- 12MHz crystal, 32.768kHz crystal
- Optional SMB connector, for external system clock input
- PSRAM, NAND-Flash, Backup Battery
- 2.8 inch TFT colour LCD display with touch-panel and backlight
- UART and USART port with level shifter IC
- Audio codec with input and output jacks: stereo headphone out, stereo line in, mono microphone in
- SD/MMC interface
- 3D accelerometer
- Temperature sensor

ALTERA

696-2345	SAM3U-EK Evaluation Kit	1+	S$	340·00

ATAVRRZRAVEN 2.4GHz Evaluation and Starter Kit

The RZRAVEN is a development kit for the AT86RF230 radio transceiver and the AVR microcontroller. Consisting of one AVRRZUSBSTICK module and two AVRRAVEN modules, it creates a platform for developing and debugging a wide range of RF applications including IEEE 802.15.4, 6LoWPAN and ZigBee networks. The kit provides a human interface, which spans from PC connectivity, through LCD and audio input and output. CE, ETSI and FCC approved.

- The AVRRAVEN features: AT86RF230 radio transceiver with high-gain PCB antenna, LCD display, Dual AVR microcontrollers, Dynamic speaker and microphone, Atmel Serial Dataflash®, User I/O: USART, GPIO, relay driver, Powered by battery or external supply
- The AVRRZUSBSTICK features: AT86RF230 radio transceiver with miniature PCB antenna, AVR microcontroller with integrated Full-Speed USB interface, External memory interface

ALTERA

696-2402	2.4GHZ RAVEN Evaluation Kit	1+	S$	179·00
696-2415	2.4GHZ RAVEN Evaluation Kit - USB	1+	S$	60·50

PSoC® 3 FirstTouch™ Starter Kit

Designed to get you acquainted and started with Cypress's PSoC design methodology and architecture, this kit comes with an array of sensors, I/O's, projects, and software to allow you to evaluate PSoC. It also gives full access to other features such as Serial Wire Debugging, an Accelerometer, a Thermistor, Proximity Sensing, a CapSense® touch-sensing interface, a 12-pin wireless module header, and even 28 GP I/O pins.

- Kit includes: PSoC 3 FirstTouch Board, USB Cable, 9V Battery, Proximity Wire (for use as a Proximity Detection Antenna), Quick Start Guide, Kit CDROM with PSoC Creator™, Projects and Documentation

CYPRESS PERFORM

710-5578	PSoC® 3 FirstTouch™ Starter Kit	1+	S$	82·50

CY8CKIT-001 PSoC® Development Kit

A common development platform where you can prototype and evaluate different solutions using any one of the PSoC 1, PSoC 3, or PSoC 5 architectures. Includes example projects with step-by-step instructions to enable you to easily get started developing PSoC solutions.

- PSoC CY8C28, CY8C38 & CY8C55 Family Processor Modules
- Software CD with PSoC® Designer™ IDE, PSoC® Programmer™ Software, PSoC® Creator™ IDE, Datasheets, Notes, and documentation
- MiniProg3 Programmer and Debugging tool
- USB Cable and 12V Power Supply Adapter
- Wire Pack and Printed Documentation

CYPRESS PERFORM

710-5540	CY8CKIT-001 PSoC® Development Kit	1+	S$	420·00

PSoC® ICE Development Kit

A complete ICE/debugging tool for PSoC based on the ICE-Cube In-Circuit Emulator unit. The kit includes an In-Circuit Emulator (ICE) which consists of a base unit connected to the host PC via the USB port. The ICE is driven by the Debugger subsystem of PSoC Designer. This software interface allows the user to run, halt, and single step the processor and set complex event points. Event points can start and stop the trace memory and break the program execution. The ICE-Cube also serves as a single-site device programmer via an ISSP (In-System Serial Programming). The MiniEval board is a programming and evaluation board which connects to the ICE-Cube via an ISSP Cable and allows programming of DIP devices.

- Supports all PSoC Programmable System-On-Chip families, including automotive, except CY8C25/26xxx devices
- Different Emulation Pods are available to support the range of devices in the PSoC family
- Pods are available for low-cost expansion of the ICE-Cube capability
- Cable and MiniEval board included in the kit
- Other programming boards available for other packages
- Kit Includes
- LEDs and a potentiometer for simple evaluation and demonstration

CYPRESS PERFORM

390-697	PSoC® ICE Development Kit	1+	S$	1200·00

PSoC® MiniProg3 Program and Debug Kit

All-in-one programmer for PSoC 1, PSoC 3 and PSoC 5 architectures, and Debugging tool for PSoC 3 and PSoC 5 architectures. A 10-way ribbon cable is included for connecting to standard 10-pin JTAG header interfaces utilized for our PSoC 3 and PSoC 5 architectures and the device itself supports the 5-pin ISSP programming header for PSoC 1 architectures.
Supplied with:

- MiniProg3, Program/Debug Ribbon Cable, USB Cable

CYPRESS PERFORM

710-5543	PSoC® MiniProg3 Program and Debug Kit	1+	S$	150·50

PSoC® LCD Segment Drive Expansion Board Kit

PSoC programmable system-on-chip architecture gives you the freedom and the capability to get quickly products to market Explore PSoC LCD segment drive capabilities through this expansion board kit

- Features a battery meter and stopwatch example projects on a 7- and 14-segment multi-function displayPSoC LCD Segment Drive Expansion Board
- Quick Start Guide
- Kit Includes
- CD, with PSoC Creator, PSoC Programmer, Projects and Documentation

CYPRESS PERFORM

710-5575	PSoC® LCD Segment Drive exp. board Kit	1+	S$	92·00

EZ-USB FX2LP Development Kit

Provides complete hardware and software solutions for accelerating the firmware and device driver development for the EZ-USB FX2LP™ family
The software utilities and example firmware allow the user to generate USB traffic quickly

- Kit includes
- EZ-USB Advanced Development Board
- EZ-USB Proto-typing Board ("Breadboard")
- USB Cable
- RS-232 Cable
- Software Installation CD-ROM

CYPRESS PERFORM

710-5569	EZ-USB FX2LP Development Kit	1+	S$	710·00

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PSoC® 3 Precision Analog Voltmeter Demo Kit

PSoC programmable system-on-chip architecture gives you the freedom and the capability to get products to market quickly Explore PSoC 3's precision analogue capabilities through the on board 20-bit Delta Sigma ADC used to measure voltage ranges between -30 V and 30 V

- Kit includes
- PSoC 3 Precision Analogue Voltmeter Demo Kit
- Quick Start Guide
- Kit CD with PSoC Creator, PSoC Programmer, Projects and Documentation

710-5547	PSoC® 3 Analog Voltmeter Demo Kit	1+	S$	148·00

Universal PSoC® CapSense™ Controller Development Kit

The CY3280-BK1 Universal CapSense Controller Kit is designed for easy prototyping and debug of CapSense designs with pre-defined control circuitry and plug-in hardware.

- CY3280-20x34 & -21x34 Universal CapSense Controller Boards
- CY3280-SLM Universal CapSense Linear Slider Module
- CY3280-BBM Universal CapSense Prototyping Module
- CY3240-I2USB Board
- CY3210 MiniProg1 Programmer
- PSoC Express, Designer and Programmer Installation CDs
- CY3280-BK1 Universal CapSense Controller Kit CD
- 1.5 and 3mm Polycarbonate Overlays
- USB 2.0 Retractable Cable

710-5565	PSoC® CapSense™ Controller Kit	1+	S$	176·50

Universal Programmable Clock Generator Development Kit

Select from over 100 predefined configurations using the CY22800 and InstaClock software or use the CY22801 for custom clock configurations. The CyberClocks software tool allows users to specify the XIN/CLKIN frequency, crystal load capacitance and output frequencies for the CY22801. Both devices are programmed with the same board included in this kit and the selected configuration is then downloaded via USB to the programmer.

- Kit includes: Programming board with a USB cable, 3 samples each of the CY22800 and CY22801 devices
- The latest programming software is available from www.cypress.com/instaclock

710-5553	Programmable Clock Generator Kit	1+	S$	44·30

ColdFire MCF523x Evaluation Board

The M523xEVB evaluation board is intended to provide a mechanism for easy customer evaluation of the MCF523x family of ColdFire microprocessors and to facilitate hardware and software development. The EVB can be used by software and hardware developers to test programs, tools, or circuits without having to develop a complete microprocessor system themselves. The heart of the evaluation board is the MCF5235, all other MCF523x family members have a subset of the MCF5235 specification and can therefore be fully emulated using the MCF5235 device.

- MCF5235 microcontroller, 150MHz, 2MByte external Page Mode Flash, 32MByte SDRAM
- BDM Debug Development connector
- 10/100Mbps Ethernet PHY with RJ-45 connector
- 2xCAN transceivers with DB-9 connectors
- 2xSerial ports with DB-9 connectors
- All internal module signal connectors available via four, 60-pin expansion connectors
- Breakout connector for serial interfaces (eTPU, I²C, QSPI, GPIO)
- ADC Interface
- Chip configuration capability
- Multiple clocking options & Debug monitor
- Power Port with Power Supply Access
- Power supply input: +6 to +14Vdc

624-3607	ColdFire MCF523x Evaluation Board	1+	S$	1550·00

USB-COM-PLUS Modules - RS232

The USB-COM-PLUS modules provide a simple method of adapting legacy RS232 devices to modern USB ports.

- USB-COM232-PLUS1: Single channel USB to RS-232 communications module. Utilises the FTDI FT232R
- USB-COM232-PLUS2: Single USB to 2 independent RS-232 port module, using the FTDI FT2232H (USB 2.0 Hi-Speed)
- USB-COM232-PLUS4: Single USB to 4 independent RS-232 port module, using the FTDI FT4232H (USB 2.0 Hi-Speed)
- RS-232 level shifters are included, plus Power/TXD/RXD LEDs

687-7730	USB to RS232 Adapter Module	1+	S$	25·30
687-7749	USB to Dual RS232 Module	1+	S$	47·80
687-7742	USB to Quad RS-232 Module	1+	S$	68·50

USB-COM-PLUS Modules - RS422

The USB-COM-PLUS modules provide a simple method of adapting legacy RS422 devices to modern USB ports.

- USB-COM422-PLUS1: Single channel USB to RS-422 communications module. Utilises the FTDI FT232R
- USB-COM422-PLUS2: Single USB to 2 independent RS-422 port module, using the FTDI FT2232H (USB 2.0 Hi-Speed)
- USB-COM422-PLUS4: Single USB to 4 independent RS-422 port module, using the FTDI FT4232H (USB 2.0 Hi-Speed)
- RS-422 level shifters are included, plus Power/TXD/RXD LEDs

687-7752	USB to RS422 Adapter Module	1+	S$	45·50
687-7761	USB to Dual RS422 Module	1+	S$	84·50
687-7764	USB to Quad RS422 Module	1+	S$	121·00

USB-COM-PLUS Modules - RS485

The USB-COM-PLUS modules provide a simple method of adapting legacy RS485 devices to modern USB ports.

- USB-COM485-PLUS1: Single channel USB to RS-485 communications module. Utilises the FTDI FT232R
- USB-COM485-PLUS2: Single USB to 2 independent RS-485 port module, using the FTDI FT2232H (USB 2.0 Hi-Speed)
- USB-COM485-PLUS4: Single USB to 4 independent RS-485 port module, using the FTDI FT4232H (USB 2.0 Hi-Speed)
- RS-485 level shifters are included, plus Power/TXD/RXD LEDs

687-7746	USB to RS485 Adapter Module	1+	S$	34·50
687-7755	USB to Dual RS485 Module	1+	S$	56·50
687-7758	USB to Quad RS-485 Module	1+	S$	94·00

EVAL232R USB to RS232 Evaluation Module

The EVAL232R is a USB to RS232 development and evaluation module for the FT232RL IC device. Additional header pins on the board which provide access to the FT232RL device's configurable CBUS interface pins. Powered from USB, the EVAL232R supports both 5V and 3V level IO interface voltage on the CBUS via a jumper setting. Full RTS/CTS, and DTR/DSR hardware handshaking are supported , DCD and RI are also available. RS232 communication is possible at up to 250kBaud. LEDs are fitted to indicate activity on the FT232RL's TXD and RXD lines, thus showing when the module is transmitting, or receiving data.

406-556	EVAL232R USB to RS232 Eval. Module	1+	S$	39·50

MM232R USB to Serial UART Development Module

The MM232R is a mini development module for the FT232RQ IC device. It is a little bigger than a USB connector, and provides USB - Serial UART interface in a extremely small form factor. It is ideal for adding a USB interface to existing product designs. Based on the FT232RQ device, the MM232R supports RTS/CTS hardware handshaking and is powered from the USB port. Serial data communication is possible at up to 3MBaud at TTL level. In addition, some of the EEPROM configurable CBUS pins of the FT232R are brought out allowing the MM232R to be used to provide clock signals to external logic.

406-562	MM232R Development Module	1+	S$	23·00

USB 2.0 Hi-Speed Mini-Module

The FT2232H Mini-Module is a USB-to-Serial/FIFO development module that utilizes the FT2232H USB Hi-Speed Two-port bridge chip
The FT4232H Mini-Module is a USB-to-Serial/MPSSE development module that utilizes the FT4232H USB Hi-Speed Four-port bridge chip
The IC handles all the USB signalling and protocols
Ideal for development purposes to quickly prove functionality of adding USB to a target design

687-7768	USB 2.0 Mini-Module, FT2232H	1+	S$	44·00
687-7777	USB 2.0 Mini-Module, FT4232H	1+	S$	48·60

UM232R USB to Serial UART Development Module

The UM232R module is a USB - Serial UART (TTL) development module for the FT232R IC device. It is supplied on a PCB designed to fit a 24 pin DIP socket, and provides access to all UART and CBUS interface pins of the FT232R device. Configured as either USB bus-powered or self-powered and also supports 5V or 3V level interface IOs via two sets of jumper setting pins. Full hardware handshaking is supported and the UM232R can communicate at up to 3MBaud at TTL/CMOS levels.

406-568	UM232R USB to Serial UART Dev. Module	1+	S$	23·90

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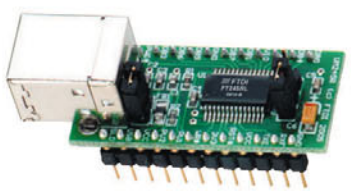
UM245R USB to Parallel FIFO Development Module

The UM245R module is a USB - Parallel FIFO interface (TTL) development module for the FT245R IC device. It is supplied on a PCB designed to fit a 24 pin DIP socket, and provides access to all FIFO interface and control pins (TXE#, RXF#, RD#, WR) of the FT245R device. Can be configured as either USB bus-powered or self-powered and also supports 5V or 3V level interface IOs via two sets of jumper setting pins. Data transfer at up to 1 MegaByte per second.



406-584	UM245R USB to Parallel FIFO Dev. Module	1+	S$	26·50

MCU to USB Host Controller VDIP Module

MCU to USB host controller development module for the Vinculum VNC1L device. The VDIP1 is supplied as a PCB designed to fit a 24-pin DIP socket and provides access to all UART, SPI and FIFO interface pins of the VNC1L device. Ideal for rapid prototyping and development of VNC1L designs, these modules are also suitable for incorporation into low/medium volume finished product designs.

- Jumper selectable UART, SPI or FIFO MCU interfaces
- USB "A" type socket(s) to interface with USB peripherals
- Single +5V supply input
- Auxiliary +3.3V @ 200mA power output to power external logic
- Power Good and Traffic Indicator LEDs

406-552	MCU to USB Host Controller Module	1+	S$	36·60

VDRIVE2 MCU to USB Host Controller Development Module

The VDrive2 module provides an easy solution for adding a USB Flash disk interface to an existing product. Only four signal lines plus 5V supply and ground are required to be connected.

- One USB "A" socket to connect to a USB Flash Drive
- Link selectable UART or SPI interface
- Easy to implement command set
- Traffic indicator LED

429-296	VDRIVE2 Development Module	1+	S$	37·30

VMUSIC2 MCU to USB Host Controller Development Module

The VMUSIC2 module is a product which not only lets you add USB Flash disk interfacing to your product, but also allows you to play back MP3 and other popular digital music formats directly from a USB flash disk. Only four signal lines plus 5V supply and ground are required to be connected.

- One USB "A" socket to connect to a USB Flash Drive
- Stereo 3.5mm headphone jack socket for audio playback
- Audio line-out connector
- Jumper selectable UART or SPI interfaces
- Traffic indicator LED

429-290	VMUSIC2 Development Module	1+	S$	62·00

USB to RS-232 Evaluation Cables

FTDI's range USB to RS-232 evaluation cable which can be used for testing the functionality of the FT232R device and drivers prior to design-in.

- The UC232R-10 is capable of communication rates with RS-232 devices from 300 Baud up to 230k Baud. A 10cm USB cable is fitted.
- The US232R-10, US232R-100, are FTDI's premium version USB to RS-232 evaluation cables. The electronics, including the FT232RQ chip are housed in a glossy white enclosure with blue, side-lit LED Tx and Rx traffic indicators. A matching white 10cm (for US232R-10), or 1m (for US232R-100), or 5m (for US232R-500) USB cable uses gold plated USB and DB9 connectors. Complete with Microsoft WHQL certified VCP drivers for Windows XP, Apple Mac, and Linux. Using an enhanced RS-232 level converter, these USB to RS-232 evaluation cables are capable of communication rates from 300 Baud to 1M Baud.

429-252	UC232R-10 Economy USB-RS232 Converter cable, 0.1m	1+	S$	32·40
429-274	US232R-10 Premium USB-RS232 Converter cable, 0.1m	1+	S$	39·70
687-7806	US232R-100-BLK Premium USB-RS232 Converter cable, 1m	1+	S$	38·20
687-7792	US232R-10-BST Premium USB-RS232 Conv cable +CD, 0.1m	1+	S$	32·90
687-7796	US232R-100-BST Premium USB-RS232 Conv cable +CD, 1m	1+	S$	48·30

USB to TTL UART Converter Cables

USB to Serial (TTL level) converter adaptor cables which provide a simple way to connect TTL interface devices to USB.

- Uses an FT232RQ device which is housed inside the USB 'A' connector. Featuring I/O pins configured to operate at 5V or 3.3V TTL levels. Cables are 1.8m (6 ft) long and available in several termination options including SIL6 0.1in pitch connector, 3.5mm audio jack plug, 8-way 2mm keyed connector or wire-ended.

687-7770	Converter cable 5V SIL6	1+	S$	30·70
429-307	Converter cable 3V3 SIL6	1+	S$	29·90
687-7786	Conv. cable 5V wire ended	1+	S$	30·80
429-303	Conv. cable 3V3 wire ended	1+	S$	33·90
687-7774	Conv. cable 5V 3.5mm Plug	1+	S$	35·60
687-7783	Conv. cable 3V3 3.5mm Plug	1+	S$	39·20
687-7780	Conv. cable 3V3 8-way 2mm	1+	S$	45·80

USB to TTL UART Converter PCB

USB to Serial (TTL level) converter adaptor PCBs which provide a simple way to connect TTL interface devices to USB.

- These converter PCBs use an FT232RQ device housed inside the USB 'A' connector. The PCB provides access to the Transmit (Tx), Receive (Rx), RATS#, and CTS# , VCC (5V) and GND. The TTL-232R-3V3-PCB version has I/O pins configured to operate at 3.3V levels.

429-278	USB to Serial TTL conv. PCB 5V	1+	S$	25·40
429-284	USB to Serial TTL conv PCB 3V3	1+	S$	22·40

UB232R USB to Serial Development Module

The UB232R is the smallest USB - Serial module in the FTDI product range. To minimise the size of the module, the UB232R uses a standard USB mini-B connector. It is ideal for new development purposes and also for adding a USB interface to existing product designs. Based on the FT232RQ device, the UB232R supports RTS/CTS hardware handshaking and is powered from the USB port. Serial data communication is possible at up to 3MBaud at TTL level.

429-262	UB232R USB to Serial Development Module	1+	S$	22·30

USB to RS-232/RS-422/RS-485 Converter Cables

USB to RS-232 or RS-422 or RS-485 levels Serial UART converter cables.

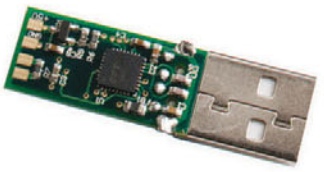
- The converter cables are a family of USB to RS-232 or RS-422 or RS-485 levels serial UART converter cables incorporating FTDI's FT232RQ which handles all the USB signalling and protocols. The cables provide a fast, simple way to connect devices with a serial UART interface to USB.
- Each converter cable includes the FT232R, which is encapsulated into the USB connector end of the cable. RS-232 or RS-422 or RS-485 level shifter plus Tx and Rx functionality.
- LEDs give a visual indication of traffic on the cable. The other end of the cable is bare, tinned wire ended connections. Optional power supply output on the Red wire is either zero or 5 Volts.

687-7828	USB to RS232 converter cable 1.8m, 0V out	1+	S$	39·50
687-7821	USB to RS232 converter cable 1.8m, 5V out	1+	S$	37·00
687-7819	USB to RS232 converter cable 5m, 5V out	1+	S$	64·50
687-7831	USB to RS422 converter cable 1.8m	1+	S$	57·00
687-7834	USB to RS485 converter cable 1.8m	1+	S$	48·80

USB to RS-232 Converter PCB

PCBs providing USB to RS-232, RS-422 or RS-485 Serial UART interface. FTDI's royalty-free VCP drivers allow for communication as a standard emulated COM port and D2XX 'direct' drivers provide a DLL application programming interface.

- Entire USB signalling and protocol handled by the FT232RQ device on the PCB
- PCB is USB Powered - no external supply required
- UART interface full support
- Support for FT232R FTDIChip-ID™ feature for improved security
- Data transfer rates from 300 baud to 3 Mbaud
- Internal EEPROM with user-writeable area



687-7825	USB to RS-232 converter PCB	1+	S$	45·20
687-7840	USB to RS-422 converter PCB	1+	S$	48·80
687-7837	USB to RS-485 converter PCB	1+	S$	44·80

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iButton™ Probe

iButton touch device probe for panel mounting applications, pre-wired for easy installation. The iButton is a computer chip enclosed in a 17mm diameter stainless-steel can. Because of this unique and durable housing, up-to-date information can travel with a person or object anywhere they go. It can be mounted virtually anywhere because it is rugged enough to withstand harsh environments, indoors or outdoors. It is small and portable enough to attach to a key fob, ring, watch, or other personal item, and be used daily for applications such as access control to buildings and computers, asset management, and various data logging tasks.

MAXIM

137-531	iButton™ Probe	1+	S$	13·80

Snap-in Angled Fobs

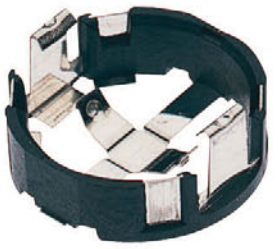
iButton snap-in angled fobs in various colours for use with F5 fprmat MicroCan devices.

MAXIM

137-632	Snap-in Angled Fob, Black	1+	S$	1·34
137-654	Snap-in Angled Fob, Green	1+	S$	1·42
137-682	Snap-in Angled Fob, Yellow	1+	S$	4·22

iButton™ Retainer

Compact iButton retainer for surface mounting purpose. Retains 16.3 x 5.8 F5 format MicroCan device.



MAXIM

137-913	iButton™ Retainer	1+	S$	4·17

dsPICDEM 80-Pin Starter Board

This development board offers a very economical way to evaluate both the dsPIC30F and dsPIC33F General Purpose and Motor Control Family devices. Includes dsPIC30F6014A plug-in module (MA300014) and dsPIC33FJ256GP710 (MA330012) and can accommodate 80-pin dsPIC30F6010 plug-in module (MA300013)

- Power input from 9V supply
- Selectable voltage regulator outputs of 5V and 3.3V
- ADC input filter circuit and on-board DAC plus filter
- LEDs, switches, potentiometer, UART interface
- Circuit prototyping area
- Assembly language demonstration program and tutorial

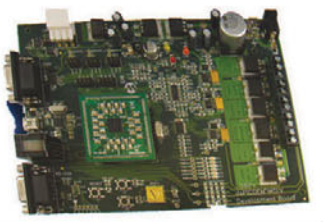
MICROCHIP

667-7971	dsPICDEM 80-Pin Starter Board	1+	S$	137·00

dsPICDEM MCLV Development Board

The dsPICDEM™ MCLV Development Board provides a method of evaluating and developing sensored or sensorless Brushless DC (BLDC) and permanent magnet synchronous motor control applications

- Supports Microchip's 28-pin SOIC and 100-pin Plug-In-Modules with dsPIC33F Digital Signal Controllers
- A dsPIC33FJ32MC204 based PIM (MA330017) is included
- The board is capable of controlling motors rated up to 48V 15A
- Multiple serial communication channels such as USB, CAN, LIN and RS-232



MICROCHIP

660-1268	dsPICDEM MCLV Development Board	1+	S$	220·00

PIC18 Microcontrollers Starter Kit

A USB-powered board to introduce and demonstrate the capabilities and features of the PIC18F J-series of Flash MCUs. In addition, the starter kit has on-board, in-circuit debug circuitry so that you may develop and debug your own applications.

- PIC18F46J50 MCU with 64KB Flash & 4KB RAM using nanoWatt XLP™ for extreme low power
- Functions as a USB mouse, joystick or mass storage device all using the on-board touch sense pads
- MicroSD memory card socket, potentiometer, acceleration sensor and OLED display
- Microchip's FREE USB bootloader and software framework
- mTouch capacitive touch sensing

MICROCHIP

686-8679	PIC18 MCU Starter Kit	1+	S$	100·50

Low Pin Count USB Development Kit

This kit provides an easy, low-cost way to evaluate the functionality of Microchip's PIC18F14K50 and PIC18F13K50 20-pin USB MCUs. Created with the USB novice in mind, the kit includes "Getting Started with Microchip's Low Pin Count USB Solutions", a self-directed course and lab material designed to ease the learning curve associated with adding USB connectivity to embedded systems.

- USB mini-B connector
- Regulated +5Vdc power supply header
- PICkit™ 2 Debugger/Programmer connection header
- PICkit™ Serial Analyzer connection header
- PICtail™ daughter board expansion header
- RS-232 connector
- Potentiometer, Push button and 4xLEDs
- Prototyping area and SSOP expansion pads
- Supplied with unpopulated spare development board, PIC18F14K50 ICD populated expansion header, CD user guide, course material and documentation

MICROCHIP

667-7965	Low Pin Count USB Development Kit	1+	S$	62·50

PIC18 Development Kit with PICkit™ 3 Programmer

The PIC18 Explorer board is used for evaluating PIC18 8-bit MCU devices: standard PIC18, PIC18 J-series and PIC18 K-series. This single development board supports dozens of the general purpose PIC18 families using various processor Plug-In Modules (PIMs). PICtail™ daughter boards enable many different accessory boards to connect to the PIC18 Explorer for a flexible and complete development environment.

- PIC18F8722 and PIC18F87J11 microcontrollers included

MICROCHIP

681-0929	PIC18 Dev Kit + PICkit™ 3 Programmer	1+	S$	235·00

MPLAB C18 C Compiler for PIC18 Family

The MPLAB C18 compiler is a full-featured ANSI compliant C compiler for the PIC18 family of 8-bit microcontrollers. Source level debugging is accomplished with the MPLAB ICE In-Circuit Emulator, the MPLAB ICD 2 In-Circuit Debugger, and the MPLAB SIM simulator

- Fully integrated component of the MPLAB Integrated Development Environment (IDE)
- Extensive library support, including PWM, SPI, I2C, UART, USART
- Supports new PIC18F Extended mode instructions

MICROCHIP

623-1171	MPLAB C18 C Compiler for PIC18 Family	1+	S$	800·00

PIC32 Starter Kit

The PIC32 Starter Kit provides the easiest and lowest cost method to introduce the PIC32 microcontroller. Using the 35 source code examples and 'Getting started' project, users quickly learn Microchip's 32-bit family of MCUs and development tools. The kit includes everything needed to write, program, debug, and execute code on a high performance PIC32 MCU

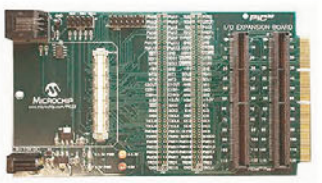
- 80MHz PIC32 with 512K Flash memory, 32K RAM
- Integrated programmer & debugger
- USB-powered board
- 3xUser switches and 3xLEDs
- Expansion connector enables addition of Microchip expansion boards

MICROCHIP

435-819	PIC32 I/O Expansion Board	1+	S$	78·00

PIC32 I/O Expansion Board

The PIC32 I/O Expansion Board provides Starter Kit and Starter Board users with full access to MCU signals, additional debug headers, and connection of PICtail Plus daughter cards. MCU signals are available for attaching prototype circuits or monitoring signals with logic probes, and Headers are provided for connecting JTAG tools or Microchip tools using the 2-wire (ICSP) interface. A PIC32 Starter Kit (#DM320001), PIC32 USB Starter Kit II (#DM320003-2), or PIC32 Ethernet Starter Kit (DM320004) is required for running application code.
The I/O Expansion Board does not have an MCU.



MICROCHIP

549-394	PIC32 I/O Expansion Board	1+	S$	106·00

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PIC24FJ256DA210 Development Kit

The PIC24FJ256DA210 Development Kit is a low cost and efficient development kit to evaluate the features and performance of the PIC24FJ256DA210 with integrated graphics, mTouch™ and USB.

- PIC24FJ256DA210 16-bit microcontroller
- Capacitive touch pads and switches
- 3.2in Truly TFT Display with resistive touch screen support
- Prototype graphics boards for prototyping LCD panels of choice
- USB connectors (embedded host/device/OTG)
- PICtail™ Plus Modular expansion slot
- RS-232 serial port and associated hardware

MICROCHIP

715-4261	PIC24FJ256DA210 Development Kit	1+	S$	610·00

MPLAB Starter Kit for PIC24F

The PIC24F Starter Kit contains everything needed to begin exploring the high performance and versatility of the PIC24F microcontroller family.

- PIC24FJ256GB110 microcontroller with 256KB Flash memory
- Capacitive touch pad
- OLED display panel
- USB OTG connector
- Tri-colour LED
- USB powered
- Integrated debugger/programmer

MICROCHIP

549-378	MPLAB Starter Kit for PIC24F	1+	S$	92·50

MPLAB C30 C Compiler for PIC24/dsPIC30F/33F Families

The MPLAB C30 compiler is a full-featured ANSI compliant C compiler for the PIC24, dsPIC30F and dsPIC33F families of PICmicro 16-bit microcontrollers

- Fully integrated component of the MPLAB Integrated Development Environment (IDE)
- Source level debugging with the MPLAB ICE In-Circuit Emulator, the MPLAB ICD 2 In-Circuit Debugger, and the MPLAB SIM simulator
- Supports advanced code size optimizations

MICROCHIP

623-1165	MPLAB C30 C Compiler	1+	S$	1360·00

PIC32 USB Starter Kit II

The PIC32 USB Starter Kit II provides the easiest and lowest cost method to experience the USB On-The-Go family of PIC32 microcontrollers. Users can develop USB embedded host, device, dual-role, or On-The-Go applications by combining this board with Microchip's free USB software.

- PIC32MX795F512L microcontroller running at 80MHz with 512K Flash and 32K RAM
- PIC32MX440F512H USB microcontroller for debugging via USB
- 4 channels of DMA + 2 channels dedicated to USB
- USB connectivity for on-board debugger communications
- USB Type A receptacle connectivity for PIC32 Host-based applications
- USB Type Micro-AB receptacle for OTG and USB device connectivity for PIC32 OTG/device-based applications
- 3xPush buttons for user-defined inputs
- Power, debug and 3 user-defined LED3
- Regulated +3.3V power supply for powering the starter kit via USB or expansion board
- USB Host and OTG power supply for powering PIC32 USB applications
- Web based instructions for software download and installation: no software is provided in the box

MICROCHIP

686-8666	PIC32 USB Starter Kit II	1+	S$	86·00

PIC32 Ethernet Starter Kit

This kit provides the easiest and lowest cost method to experience 10 / 100 Ethernet development with PIC32.

- USB powered board with PIC32 running at 80 MHz with 512K Flash and 128K RAM
- 8 channel DMA + 8 channel DMA dedicated to Ethernet, CAN and USB
- Integrated programmer and debugger
- 3x Push buttons for user-defined inputs and 3x User-defined indicator LEDs
- Expansion connector: Hirose FX10A-120P/12-SV1(71)
- Includes A to mini B cable for debugger, A to micro B cable for USB application development, Ethernet cable and software CD.

MICROCHIP

686-8657	PIC32 Ethernet Starter Kit	1+	S$	112·50

PICkit™ 1 Flash Starter Kit

The PICkit™ 1 Flash Starter Kit includes everything needed to programme, evaluate and develop applications using PIC 8 and 14 pin Flash family MCUs.

- Small circuit board with snap-off prototyping board
- Supplied with PIC12F675
- Easy to use Windows based programming interface
- Seven tutorials covering I/O, Interrupts, ADCs, Timers and Comparators
- Supplied with PICkit™ 1 FLASH Starter Kit CD-ROM, MPLAB IDE CD-ROM, "Tips and Tricks" Booklet, USB cable

MICROCHIP

615-3043	PICkit™ 1 Flash Starter Kit	1+	S$	54·50

PICkit™ 2 Flash Starter Kit

The PICkit™ 2 Flash Starter Kit includes everything needed to programme, evaluate and develop applications using PIC 8,14 and 20 pin Flash family MCUs.

- Low pin-count PICkit™ demo board supporting 8, 14 and 20-pin PIC MCUs
- Supplied with PIC16F690 microcontroller
- Easy to use Windows based programming interface
- Twelve tutorials demonstrating the use of the PIC 8, 14 and 20-pin FLASH family
- Note: Requires the AC162061 ICD Header and AC164110 adapter to debug.

MICROCHIP

615-3059	PICkit™ 2 Flash Starter Kit	1+	S$	76·00

PICkit™ 2 Programmer/Debugger

A development tool providing an easy-to-use interface for Microchip's Flash families of MCUs. It is a Full-Speed USB device, significantly speeding up development programming and can be used for most current 8-, 16-, and 32-bit Flash PIC MCUs. The unit contains a USB socket, status LEDs, push button, programming connector, and lanyard connection. UART Tool and Logic Tool MCU development utilities are included

- Easy to use with MPLAB® IDE and other development environments
- Programmer-To-Go: Set up a PICkit 2 to program a device without the need for a PC
- Advanced Breakpoints for PIC18F, PIC24 & dsPIC devices

MICROCHIP

381-582	PICkit™ 2 Programmer/Debugger	1+	S$	54·50

PICkit™ 2 Debug Express kit

The PICkit™ 2 allows debugging and programming of PIC and dsPIC Flash microcontrollers using the powerful graphical user interface of the MPLAB Integrated Development Environment.

- 44-pin PICkit™ demo board
- Supplied with PIC16F877 microcontroller
- Easy to use Windows based programming interface
- Twelve tutorials demonstrating the use of midrange PICs
- Supplied with: PICkit™ 2 Programmer, USB cable, CD-ROMs with MPLAB IDE,
- PICC™ LITE C compiler, user guide and tutorials.

MICROCHIP

149-613	PICkit™ 2 Debug Express kit	1+	S$	75·50

PICkit™ 3 Debug Express kit

The PICkit™ 3 allows debugging and programming of PIC and dsPIC Flash microcontrollers using the powerful graphical user interface of the MPLAB Integrated Development Environment.

- 44-pin demo board with a PIC18F45K20 microcontroller
- USB (Full speed 12 Mbits/s) interface to host PC
- Real-time execution
- MPLAB IDE compatible
- Firmware upgradeable from PC/web download
- Supports low voltage to +2.0 volts (+2.0 to +6.0V range)
- Read/write program and data memory of microcontroller
- Freeze-peripherals at breakpoint

MICROCHIP

665-7416	PICkit™ 3 Debug Express kit	1+	S$	109·00

PICkit™ 3 Programmer

The PICkit™ 3 allows debugging and programming of PIC and dsPIC Flash MCUs using the powerful GUI of the MPLAB Integrated Development Environment (IDE). Firmware is upgradeable from PC or web download

- USB (Full speed 12 Mbits/s) interface to host PC
- Real-time execution and MPLAB IDE compatible
- Built-in over-voltage/short circuit monitor
- Supports low voltage to +2.0 volts (+2.0 to +6.0V range)
- Read/write program and data memory of microcontroller
- Erase of program memory space with verification
- Freeze-peripherals at breakpoint

MICROCHIP

687-2750	PICkit™ 3 Programmer	1+	S$	65·00

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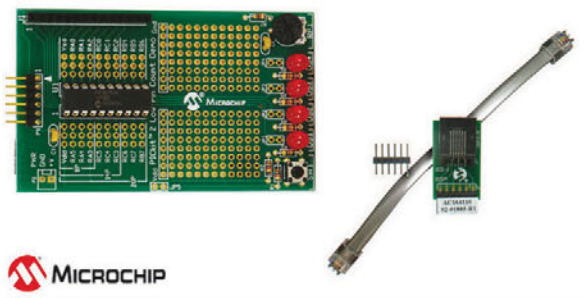
PICkit™ Demo Boards

Demonstration boards for various PIC microcontrollers designed to work with the PICkit™ 2 programmer - for full range visit RS online.

- Low pin count, 8 / 14 / 20pin PIC16F690 Demo Board
- ICSP™ 6-pin connector for PICkit™ 2 programmer
- RJ-11 to ICSP™ adapter and cable available separately



MICROCHIP

149-922	PICkit™ PIC16F690 Demo Board	1+	S$	37·60
667-7889	RJ-11 to ICSP™ adapter + cable	1+	S$	15·60

PICkit™ Serial Analyzer

The PICkit™ Serial Analyzer is a USB-based tool used to direct communication between a PC and an external serial device managing serial communication with a device under test. The Windows® GUI configures the hardware and 'scripts' communication with the target device. Scripts can be conveniently assigned to push buttons or simply executed directly from the library index. Communication data / events are posted to a transaction window.

- Protocols supported: I^2C Master/Slave, SPI Master, USART Asynchronous/Synchronous, LIN (external hardware required to meet electrical specifications), MICROWIRE
- 28-Pin Demo Board includes a PIC16F886, switch, LED(s), connector for the PICkit™ analyser and ample prototype area
- Processor contains demonstration firmware supporting I^2C communication and emulation of 3 I^2C devices: EEPROM, ADC and Real Time Clock

MICROCHIP

381-554	PICkit™ Serial Analyzer	1+	S$	72·00

Low Pin-Count USB Development Kit

The Low Pin Count USB Development Kit provides an easy, low-cost way to evaluate PIC18F14K50 and PIC18F13K50 20-pin USB microcontrollers. Created with the USB novice in mind, the kit includes a self-directed course and lab material designed to ease the learning curve associated with adding USB connectivity to embedded systems. This kit includes the PICkit™ 2 debugger/ programmer.

- USB mini-B connector
- PICkit™ 2 Debugger/Programmer connection header
- PICkit™ Serial Analyzer connection header
- PICtail™ daughter board expansion header
- RS-232 connector and Prototyping area

MICROCHIP

667-7980	Low Pin-Count USB Development Kit	1+	S$	91·50

rfPIC® Development Kit

The rfPIC® Development Kit 1 provides design engineers with an easy way to evaluate unidirectional, remote sense and control wireless links based on the rfPIC12F675 and rfRXD0420/0920 devices.

- PICkit™ 1 Flash Starter Kit
- 433.92 MHz and 315 MHz transmitter modules
- 433.92 MHz and 315 MHz receiver modules

MICROCHIP

667-7805	rfPIC® Development Kit	1+	S$	205·00

ICD2 & ICD3 Header PIC16F627A/28A/48A

18-pin (PIC16F627A/28A/48A) devices with limited I/O make integrated in-circuit debugging impractical. Instead, in-circuit debugging is made possible by using a header containing an equivalent device with integrated in-circuit debugging peripheral. For debugging, the header is connected to the MPLAB ICD 2/3 module via the MPLAB ICD 2/3 connector and is inserted into the target socket with a stand-off connector.

MICROCHIP

623-0982	ICD2 & ICD3 header PIC16F627A/28A/48A	1+	S$	54·50

ICD 2 In-Circuit Debugger/ Programmer Module (ws Version)

In-Circuit Debugger (ICD) 2 allows the debugging of a range of PIC microcontrollers through the MPLAB® Integrated Development Environment (IDE) GUI. The MPLAB ICD 2 module links a PC and the users target board allowing direct in-circuit debugging of the target microcontroller in real time.

- USB (full speed 2Mbits/sec) and RS-232 interface to host PC
- Supports low voltage target systems (2.0 to 6.0V)
- Diagnostic LEDs (Power, Busy, Error)
- Reading/Writing memory space and stack of target microcontroller
- Freeze on halt

MICROCHIP

615-3037	ICD 2 In-Circuit Debug/Prog Eval Kit ws version	1+	S$	340·00

Universal Programming Module for MPLAB ICD 2

This module contains a ZIF Socket that can accommodate 18, 28 and 40 pin DIP packaged Flash based PIC devices, enabling the MPLAB ICD 2 to program these devices

- True ZIF socket
- MPLAB ICD 2 driven
- Can be used with PICSTART™ Plus with minor modification

MICROCHIP

623-0718	Universal Prog. Module for MPLAB ICD 2	1+	S$	62·50

ICD 3 In-Circuit Debugger/ Programmer

MPLAB ICD 3 In-Circuit Debugger System is Microchip's most cost effective high-speed debugger for Microchip Digital Signal Controller (DSC) and microcontroller devices. It debugs and programs PIC Flash MCUs and dsPIC DSCs with the powerful, yet easy-to-use graphical user interface of MPLAB Integrated Development Environment (IDE). MPLAB ICD 3 supports all Emulation headers. MPLAB ICD 3 is faster than the MPLAB ICD 2.

- Full-speed real-time emulation
- Ruggedized interface
- Supports all MPLAB ICD 2 headers
- Powerful debugging

MICROCHIP

660-1264	ICD 3 In-Circuit Debugger/Programmer	1+	S$	280·00

ICD 3 Eval Kit (with PICDEM 2 Plus)

MPLAB ICD 3 In-Circuit Debugger System is the latest high-speed emulator for Microchip Flash devices. It debugs and programs these with the powerful, easy-to-use graphical user interface of MPLAB IDE. Programming times are typically 15x faster than previous systems. A 40MHz dsPIC33 and high-speed FPGA yield faster comms, downloads and debugging. The complete kit introduces the developer to Microchip's family of 8-bit MCU hardware debugging and programming devices.

- Full-speed real-time emulation
- Ruggedized interface
- Supports all MPLAB ICD 2 headers

MICROCHIP

687-2747	ICD 3 Evaluation Kit (with PICDEM 2 Plus)	1+	S$	350·00

ICD 3 Eval Kit (with Explorer 16)

MPLAB ICD 3 In-Circuit Debugger System is the latest high-speed emulator for Microchip Flash devices. It debugs and programs these devices with the powerful, yet easy-to-use GUI of MPLAB IDE. Programming times are typically 15x faster than previous systems. A 40MHz dsPIC33 and high-speed FPGA yield faster comms, downloads and debugging. The complete kit introduces the developer to Microchip's family of 16-bit MCUs with all the tools for writing code in C, debugging and programming.

- Full-speed real-time emulation
- Ruggedized interface
- Supports all MPLAB ICD 2 headers

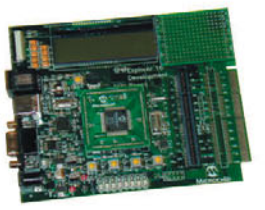
MICROCHIP

687-2741	ICD 3 Evaluation Kit (with Explorer 16)	1+	S$	460·00

PICDEM Explorer 16 (100 pin) Kit

The Explorer 16 is a low cost, efficient development board to evaluate the features and performance of the 16-bit PIC24 microcontroller, the dsPIC33 Digital Signal Controller (DSC) families and the 32-bit PIC32MX devices.

- Includes both PIC24FJ128GA010 and dsPIC33FJ256GP710 PIM modules
- Alphanumeric 16 x 2 line LCD display
- Interfaces to MPLAB ICD 2 and MPLAB REAL ICE™
- USB and RS-232 interfaces
- PICTail™ Plus connector
- Prototyping area on board
- Temperature sensor (TC1047A)



MICROCHIP

623-1143	PICDEM Explorer 16 (100 pin) Kit	1+	S$	198·00

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PICDEM 2 Plus Demonstration Board

The PICDEM™ 2 Plus demonstrates the capabilities of many of the 18-, 28- and 40-pin PIC16xxxx and PIC18xxxx devices. It can be used stand-alone with a programmed part, with an in-circuit emulator (e.g., MPLAB ICE or MPLAB REAL ICE™) or with an in-circuit debugger, MPLAB ICD 2. An active program is loaded on the installed PIC18F452, and a PIC16F877 is included with its own demonstration program.

- 2-line 16-character LCD display
- RS-232 (DB9) port
- Prototyping area on board
- Piezo sounder and temperature sensor
- 4xLEDs, 2x Pushbutton switch, master reset

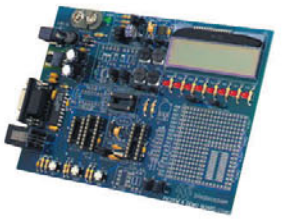
MICROCHIP

623-1086	PICDEM 2 Plus Demonstration Board	1+	S$	140·00

PICDEM 4 Demonstration Board

This board can be used to evaluate and demonstrate the capabilities of the 8-, 14- and 18-pin PIC12F, PIC16F and PIC18F microcontrollers.

- 2 line x 16 LCD display
- Connector for MPLAB ICD 2 Debugger
- RS-232 (DB9) Interface
- Header for access to all device I/O pins
- Prototyping area on board
- LEDs, potentiometers and push-buttons on board



MICROCHIP

623-1064	PICDEM 4 Demonstration Board	1+	S$	192·00

PICDEM CAN-LIN 2 Demonstration Board

This demonstration board allows users to explore the features of PIC Microcontrollers with integrated CAN modules including PIC18F258/2680, PIC18F458/4680.

- Firmware pre-programmed on supplied sample device
- Two on-board CAN nodes
- On-board LIN Bus master and slave nodes via PIC16C432
- RS-232 (DB9) Interface
- Large prototyping area on board
- Sockets for 28-pin SDIP, 20- and 40-pin DIP devices

MICROCHIP

623-1058	PICDEM CAN-LIN 2 Demonstration Board	1+	S$	285·00

PICDEM™ HPC Explorer Board

This demonstration board is ideal to evaluate the performance of PIC18F series 8-bit microcontrollers. The board features a PIC18F8722 MCU, which is the superset of the entire PIC18Fxxxx +5V MCU family. The board can easily be used to evaluate the PIC18 J-series +3V devices.

- Full pin break-out for easy wire-wrap/prototyping
- Daughter board and MPLAB ICE2000/4000 connector (switch to disable on board processor)
- Connection for MPLAB ICD 2 (In-Circuit Debugger) for in-circuit programming and debugging
- Extended PICtail™ connector

MICROCHIP

623-1121	PICDEM™ HPC Explorer Board	1+	S$	93·50

PICDEM™ Mechatronics Demonstration Kit

An easy-to-use Mechatronics development platform demonstrating the implementation of intelligent control in a mechanical system. Supplied jumper wires allow the user to experiment by connecting the PIC MCU to various on-board components including sensors, LEDs, human input devices and motor drivers.

- Populated with PIC16F917 microcontroller
- On-board stepper and brushed DC motors
- Optical speed sensor for DC motor and Light sensor
- RS-232 (DB9) Interface and LCD module
- ICSP™ programming capability (using PICkit™ 2 programmer)
- Connector for MPLAB ICD 2 Debugger

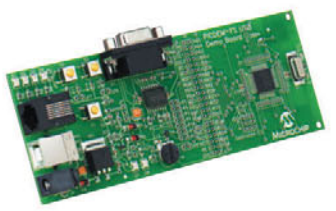
MICROCHIP

623-1109	PICDEM™ Mechatronics Demonstration Kit	1+	S$	240·00

PICDEM USB 2.0 Demonstration Board

The PICDEM™ FS-USB is a demonstration and evaluation board for the PIC18F4550 family of Flash microcontrollers with full speed USB 2.0 interface.

- Device pre-loaded with a USB bootloader
- Supports MPLAB ICD 2
- RS-232 (DB9) port
- On board TC77 temperature Sensor with SPI interface
- Potentiometer to demonstrate ADC function



MICROCHIP

623-1070	PICDEM USB 2.0 Demonstration Board	1+	S$	95·00

PICDEM.net™ 2 Development Board

An Internet/Ethernet board supporting both the popular ENC28J60 Ethernet Controller and the single-chip Ethernet MCU family PIC18F97J60. Using Microchip's free TCP/IP stack, a web server can be developed with the capability to remote monitor and control embedded applications over the Internet.

- ICSP™/MPLAB ICD 2 interface connector for in-circuit programming and debugging
- 2-line 16-character alpha-numeric LCD display
- PICtail™ connector for future expansion boards
- Web server with HTML support
- 2x Ethernet interface (RJ-45)

MICROCHIP

381-564	PICDEM.net™ 2 Development Board	1+	S$	255·00

PICtail™ Plus 100Mbps Ethernet Daughter Board

Fast 100 Mbps Ethernet PICtail™ Plus Daughter Board for evaluating and demonstrating the ENC424J600 and ENC624J600 stand-alone 10/100 BaseT Ethernet controllers. It is compatible with many host boards, including the Explorer 16, PIC32 I/O Expansion Board, PICDEM.net™ 2 and PIC18 Explorer development boards.

- ENC624J600 10 / 100 BaseT Ethernet controller with factory pre-programmed MAC address
- PICtail™ Plus edge contacts for SPI or PSP connection to Explorer 16 and PIC32 I/O Expansion Boards
- PICtail™ headers for SPI connection to PICDEM.net 2 and PIC18 Explorer Boards

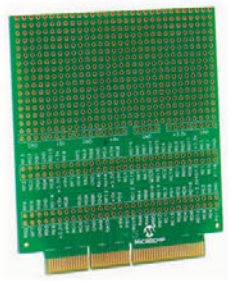
MICROCHIP

686-8694	PICtail™ Plus 100Mbps Ethernet Board	1+	S$	78·00

PICtail™ Plus Prototyping Daughter Board

The Prototype PICtail Plus Daughter Board is an expansion breadboard card for the Explorer 16 Development Board using a PIC24 MCU or dsPIC33 DSC.

- 8x8cm board provides access to all the processor pins
- General purpose prototyping area
- Kit contains three boards



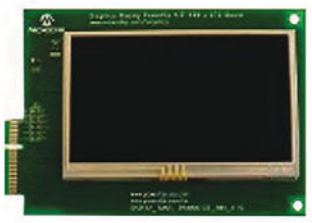
MICROCHIP

667-7918	PICtail™ Plus Prototyping Board	1+	S$	30·40

PICtail™ Plus 4.3in Display Panel Daughter Board

The Graphics Display Powertip 4.3 480x272 Board is a demonstration board for evaluating Microchip Technology's graphic display solution and graphics library for 16- and 32- bit microcontrollers. It is an expansion board compatible with the LCD controller boards such as Graphics LCD Controller PICtail™ Plus SSD1926 Board (AC1 64127-5).

- 4.3WQVGA (480x272) TFT LCD with 24-bit parallel RGB interface
- Resistive 4-wire touch screen



MICROCHIP

698-8886	PICtail™ Plus 4.3in Display Panel Board	1+	S$	173·00

PICtail™ Plus Graphics Daughter Board & Panel

The Graphics PICtail™ Plus Daughter Board with 3.2 Display Kit for evaluation of hardware and graphics library for 16- and 32-bit MCUs. It includes a Graphics LCD Controller PICtail™ Plus SSD1926 Board (AC164127-5) and a Graphics Display Truly 3.2 240x320 Board (AC164127-4). Compatible with the Explorer 16 development board (DM240001) or PIC32 Starter Boards (DM320001, DM320003).

- For more details and a full list of features and functions visit RS online

MICROCHIP

681-0957	PICtail™ Plus Graphics Board & Panel	1+	S$	255·00

PICtail™ Plus Graphics Controller Daughter Board

The Graphics LCD Controller PICtail™ Plus SSD1926 is a demo board for evaluating Microchip's graphics displays and library for 16- and 32-bit MCUs. It is compatible with the Explorer 16 development board (DM240001) or one of the PIC32 starter boards (DM320001, DM320003).

- Graphics display controller SSD1926 supporting 4/8bit STN, 4/8bit CSTN, 18bit HR-TFT, and 9/12/18/24bit TFT interface
- SD/MMC Card socket, connected to SSD1926 via 4-wire I/F
- 16Mbit (2Mx8) serial Flash memory for additional data storage
- Display connector for interfacing with different display boards
- PIC32 Starter Kit connector

MICROCHIP

686-8675	PICtail™ Plus Graphics Controller Board	1+	S$	104·50

www.nguyenxuong.com

PICtail™ Plus ZeroG 802.11 Development Kit

The ZeroG 802.11 Development Kit demonstrates 802.11 connectivity (Wi-Fi) via the ZeroG ZG2100M PICtail board for the PIC-microcontroller-based Explorer 16 Development Board. The kit provides everything the user needs to begin development of an 802.11 network..

- Wireless router
- ZeroG PICtail™ Board
- Pre-programmed PIM with Microchip's free TCP/IP stack and radio driver
- Explorer 16 development board and power supply NOT included in the kit. Router requires a 110Vac mains supply.

MICROCHIP

672-2756	PICtail™ Plus ZeroG 802.11 Development Kit	1+	S$	295·00

MPLAB® REAL ICE™ In-Circuit Emulator

In-Circuit Emulator system for debugging and programming PIC® and dsPIC® Flash MCUs. The emulator pod is controlled by a PC running the MPLAB IDE

- Real-time execution and real time trace collection
- Stopwatch & Real time clock
- Full hardware debugging: breakpoints, single-step, variable inspect/modify
- Logic probe inputs/outputs (8)
- I/O Port trace and SPI trace options for high speed upload of trace data
- Over voltage/short-circuit monitor protection
- High speed USB 2.0 communications

MICROCHIP

381-592	REAL ICE™ Base probe kit	1+	S$	780·00
686-8663	REAL ICE™ performance pak	1+	S$	250·00

MPLAB C Compiler for PIC32 Family

A full-featured ANSI compliant C compiler for Microchip's PIC32 family of 32-bit MCUs with no code size limit and complete functionality for 60 days. (Usable thereafter with some optimization levels disabled)

- Fully compatible with Microchip's MPLAB IDE and popular third party IDEs
- DSP library: C callable DSP functions written in assembly using the standard MIPS DSP library APIs
- Even smaller Code size: Use 16-bit instruction mode for up to 40% size reduction
- Small and fast: Mix 16- and 32-bit instructions in the same source file

MICROCHIP

435-803	C Compiler for PIC32 Family	1+	S$	1470·00

PICSTART® Plus Development Programmer

A kit providing a highly-flexible, low-cost design tool set for all Microchip PIC MCUs. Reads, programs and verifies EPROM & EEPROM memory plus all configuration bits; programs and verifies an address range. Operates with PC-compatible host system running Windows under MPLAB IDE environment

- MPLAB Project support to automatically download object file to PICSTART Plus
- MPASM™ Assembler translates assembler source code to object code
- MPLAB SIM Windows-based simulator to model operation of all PICmicro MCUs
- PICC Lite™ C compiler for PIC16F84 MCU

MICROCHIP

234-0568	Development Programmer Kit	1+	S$	265·00

PICSTART® Plus Flash Upgrade Module

The PICSTART® Plus Flash Upgrade Module is a PCB that contains a PIC18F6720 device programmed with firmware needed to support a specific set of devices in the MPLAB IDE.

- Replaces the PIC17C44 in the PICSTART Plus
- Supports MPLAB Integrated Development Environment (IDE)
- Future upgrades can be Flash programmed into the supplied device
- Future upgrades can be downloaded to extend device support
- For PICSTART Plus units prior to Revision R20 only

MICROCHIP

623-1187	PICSTART® Plus Flash Upgrade Module	1+	S$	51·50

Beginners Guide to the Microchip PIC

A comprehensive introduction to the PIC, how it works and how to use it, this ring bound and illustrated book follows a basic flowchart used in product development starting with an idea, moving through hardware and software design, assembling and debugging and finally onto programming the PIC. The accompanying 3.5" IBM format disks contains the Microchip MPLAB Windows development environment and a number of source code examples and projects from the book.

MICROCHIP

182-7317	Beginners Guide to the Microchip PIC	1+	S$	57·50

MPLAB PM3 Universal Device Programmer

An easy-to-use Universal Device Programmer which operates with a PC or in stand-alone mode. It programs Microchip's entire line of PIC® devices as well as the latest dsPIC® DSC devices. Three operating modes: PC Host mode for full control, Safe mode for secure data, Stand-alone mode for programming without a PC; in stand-alone mode data can be loaded and saved on an SD/MMC card (not included).

- RS-232 or USB interface; ICSP™ interface
- SQTP® serialization for programming unique serial numbers while in PC Host mode
- An alternative DOS command line interface is available for batch control
- Field upgradeable firmware allows quick new device support
- SD/MMC Flash memory card socket
- Supports PROMATE® II socket modules via adapter (sold separately)
- Complete line of interchangeable socket modules to support all Microchip devices and package options available

MICROCHIP

517-2661	MPLAB PM3 Universal Device Programmer	1+	S$	1370·00
698-8877	MPLAB PM3 18L/28L/40L DIP Socket	1+	S$	285·00
667-7937	MPLAB PM3 SOIC Socket Module	1+	S$	325·00
681-0948	MPLAB PM3 44L TQFP Socket Module	1+	S$	323·00
681-0941	MPLAB PM3 28/44L QFN Socket Module	1+	S$	320·00

HI-TECH C-Compiler for PIC10/12/16 & PIC18

HI-TECH C compilers for PIC10/12/16 and PIC18 MCUs implement the optimizations of Omniscient Code Generation™ (OCG) - a whole program compilation technology - to provide denser code and better performance for development on PIC10/12/16 and PIC18 MCUs.

- Unlimited Memory Usage
- Fully integrates into MPLAB® IDE
- Runs on all platforms: Windows (including 64-bit Vista), Linux and Mac OS X

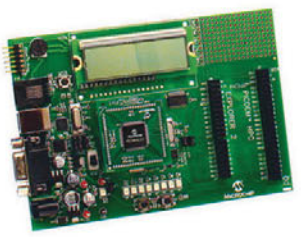
MICROCHIP

681-1023	C compiler for PIC10/12/16 MCUs	1+	S$	770·00
681-1027	C compiler for PIC18 MCU	1+	S$	740·00

PICDEM PIC18 Explorer Board

A low-cost way to evaluate the PIC18 MCU families. The PIC18 is the highest performance 8-bit architecture and has three different families: standard PIC18, PIC18 J-series and PIC18 K-series. This board supports dozens of the general purpose PIC18 families using various processor Plug-In Modules. PICtail™ daughter boards allow the connection of different accessory boards to the PIC18 Explorer board. The board is also an ideal complement to the MPLAB® PICkit 3 or ICD 3 debugger and programmer for a full-featured, economical, PIC18 development environment.

- For list of features and more product details visit RS online



MICROCHIP

549-372	PICDEM PIC18 Explorer Board	1+	S$	155·50

MCP2200 USB to RS-232 Demo Board

The MCP2200EV-VCP is a USB-to-RS232 development and evaluation board for the MCP2200 USB-to-UART device. The board allows for easy demonstration and evaluation of the MCP2200.

- Powered via USB
- Test points for all GPIO pins
- 9-pin D-sub connector for RS-232
- Mini-USB connector
- Tx and Rx LEDs for indicating USB to UART traffic (when enabled)
- Software for configuring special features of the device

MICROCHIP

699-0448	MCP2200 USB to RS-232 Demo Board	1+	S$	36·90

dsPICDEM MCSM Development Kit

Controls stepper motors in open- or closed-loop mode, with no hardware changes for 4-, 6- or 8-wire motors in either unipolar or bipolar configuration. Features include full or variable micro-stepping, GUI for controlling step commands, motor parameter input and operation modes; mounting option to connect either a 28-pin SOIC device or a generic 100-pin Plug-In Module.
The Kit includes:

- dsPICDEM MCSM board, dsPIC33FJ43MC204 DSC Module (MA330017), USB to mini-USB cable, CD ROM with MCSM User's Guide, data sheets, application note with software and MPLAB DMCI/RTDM GUI for Stepper Motor Control, 24V PSU and Stepper Motor.

MICROCHIP

704-3212	MCSM Development Board	1+	S$	380·00

www.nguyenxuong.com

JTAG Emulator

JTAG probes for Debugging and Programming of ARM microcontrollers with ARM standard 2x10 pin JTAG Connector

- ARM-JTAG (705-5038) has a Parallel port JTAG dongle interface
- ARM-USB-OCD (705-5032) combines USB-to-RS-232 Virtual Port and Power Supply adapter 5-9-12Vdc
- ARM-USB-TINY (705-5041) is down-sized version of ARM-USB-OCD, with no output buffers, and no RS-232 interface
- ARM-JTAG-EW (705-5044) offers in addition External Breakpoints at power consumption, and digital/analogue signal set values
- For all these products visit RS online

Olimex

705-5032	3-in-1 USB JTAG Debugger	1+	S$	125·00

JTAG Tools

USB JTAG for Mass Programming and Flash Emulation of all MSP430Fxxx Microcontroller

- Ultra fast programming – several times faster than TI-USB-FET
- Spy-Bi-Wire support for the latest TI MSP430 devices
- MSP430.dll makes it compatible with all existing software which works with TI-USB-FET (emulates TI-USB-FET)
- Compatible with IAR Kickstart software for programming, real time emulation, debugging, step-by-step program execution, breakpoints, memory dump etc.
- Works with free GCC C compiler and Insight MSP430 tool-chain and debugger
- For complete list of features and functions go to RS online

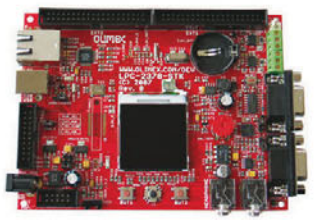
Olimex

705-5158	MSP430-JTAG-ISO Isolated	1+	S$	200·00
705-5151	MSP430-JTAG-TINY Hi-Speed	1+	S$	112·50

Philips LPC2000

Development Prototype Board for the LPC2378 ARM7TDMI-S™ Microcontroller

- Standard JTAG connector with ARM 2x10 pin layout for Programming/Debugging with ARM-JTAG
- Optional - TRACE connector
- Ethernet 100MBit connector
- RS-232 interface port
- CAN driver and connector
- SD/MMC card connector
- UEXT connector with I^2C, SPI, RS-232 and power supply
- See more development boards in this range at RS online



Olimex

705-5060	LPC2378 Development Prototype Board	1+	S$	245·00

STMicroelectronics Cortex M3™

Header Board for STM32F103RBT6 ARM CORTEX M3 Microcontroller

- For STM32F103RBT6 CORTEX M3 Microcontroller Starter Kit Board 705-5098 visit RS online

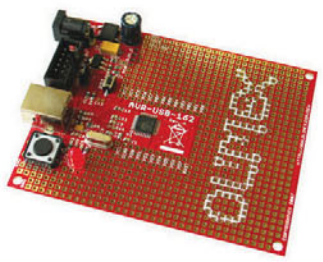
Olimex

705-5094	Header Board for TM32F103RBT6	1+	S$	91·50

AVR Prototype Boards

Prototype Board with AT90USB162 microcontroller that provides basic USB circuit functionality

- ICSP 5x2 pin connector for in-circuit programming
- Debug Wire could be performed by 3 wires connected to ICSP
- USB connector and circuit
- USB powered (100mA), no need for external adapter
- External power supply and voltage regulator, if USB can't provide enough power
- User pushbutton switch, status LED, Reset switch
- 8MHz crystal oscillator



Olimex

705-5139	AVR-USB-162 Dev Board	1+	S$	49·70

AVR Development Boards

Development Board for AT90USB162 AVR Microcontroller with USB and ICSP Connector

- ICSP 5x2 pin connector for in-circuit programming with AVR-ISP-MK2
- Debug Wire could be performed by 3 wires connected to ICSP
- USB 2.0 Full speed connector
- RS-232 driver and connector
- SD-MMC card connector
- Audio Out 3.5mm jack connector
- Extension connector with AVR port signals
- Status LED, Joystick, User pushbutton, Reset pushbutton

Olimex

705-5133	AT90USB162 AVR Dev Board	1+	S$	100·00

PIC Programmer

- PIC-MCP-USB is an alternative to PICSTART+
- USB port connection for signals and power, the perfect solution for new computers with no RS-232 port
- Gold plated 40-pin ZIF socket
- ICSP connector that can be used to program all PIC-PxxB prototype boards
- Supports ALL devices which PICSTART+ supports
- Dimensions 100 x 80 mm

Olimex

705-5195	PIC Programmer	1+	S$	136·00

PIC Development Board PIC-WEB

Revision-B Web Server TCP-IP Development Board for PIC Microcontrollers

- PIC18F67J60 microcontroller
- 1Mbit serial Flash memory for web pages storage
- ICSP/ICD connector for programming and debugging
- Complete Web Server and TCP-IP stack support using Microchip's open source TCP-IP stack
- User event Button, Reset Button, Analogue Trimmer Potentiometer
- Thermistor for temperature monitoring
- RS-232 driver and connector
- Dimensions 60 x 65 mm

Olimex

705-5202	PIC-WEB Development Board	1+	S$	80·00

PIC Development Board PIC-USB-STK

Starter Kit Prototype Board for PIC18F4550 Microcontroller with USB

- ICSP/ICD connector for programming and debugging
- USB 2.0 type B connector enables interface with a computer
- PIC18F4550-I/P on DIL40 socket
- Quartz crystal 20MHz
- RS-232 connector, SD-MMC connector
- Audio In, Audio Out connectors
- Trimmer Potentiometer
- Status LEDs, Four Buttons, Reset Button
- Dimensions 104 x 76 mm

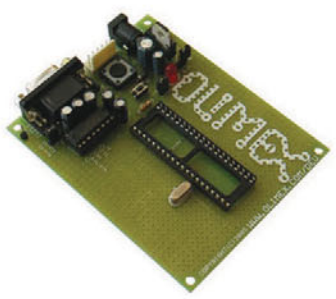
Olimex

705-5240	PIC-USB-STK Starter Kit Prototype Board	1+	S$	100·00

PIC Prototype Board PIC-P40-20MHz

Development Prototype Board for 40-pin PIC Microcontrollers

- ICSP/ICD connector for Programming and Debugging
- RS-232 Tx, Rx interface with MAX232 on socket
- Dual-In-Line 40-pin microcontroller socket
- Quartz crystal 20MHz
- LED to RA0 through jumper
- User Button, Reset Button



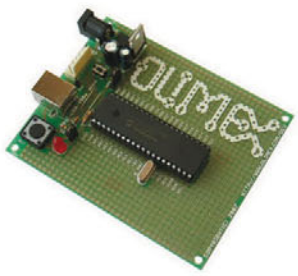
Olimex

705-5234	PIC Prototype Board PIC-P40-20MHz	1+	S$	25·80

PIC Prototype Board PIC-USB-4550

Development Prototype Board for PIC18F4550 Microcontroller with USB

- ICSP/ICD connector for Programming and Debugging
- USB 2.0 type B connector enables interface with a computer
- PIC18F4550-I/P on DIL40 socket
- Quartz crystal 20MHz
- LED connected to RD3 through jumper
- User Button, Reset Button



Olimex

705-5246	PIC Prototype Board PIC-USB-4550	1+	S$	50·50

Propeller™ Tools

A range of prototyping hardware for the Parallax Propeller™ range of multiprocessor devices.

- Starter Kit contents: Propeller Demo Board, Manual, Software on CD-ROM, USB cable

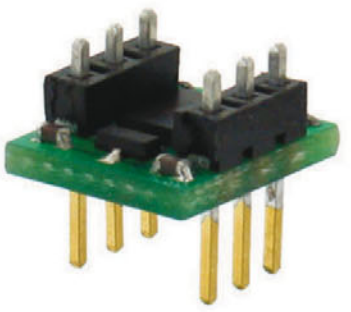
405-600	Propeller Prop Plug 32201	1+	S$	52·50
405-616	Propeller Proto board 32212	1+	S$	48·60
405-571	Propeller Starter Kit 32300	1+	S$	360·00

www.nguyenxuong.com

BASIC Stamp Sensor Modules

Memsic 2125 2-axis ±3g Accelerometer DIP-6 Module

- For more BASIC Stamp Sensor modules such as Temperature & humidity, Colour, Compass and Flexiforce visit RS online

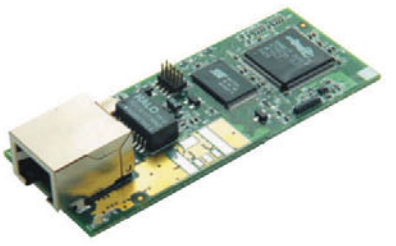


666-6631	BASIC Stamp Accelerometer Sensor	1+	S$	67·00

RCM3700 RabbitCore® module

The RCM3700 RabbitCore® is the lowest priced Rabbit 3000™ microprocessor based core module designed for Ethernet/Internet applications

- Powerful Rabbit 3000™ microprocessor
- Up to 512K Flash / 512K SRAM
- 33 digital I/O, alternate I/O bus
- 4 serial ports



436-563	RCM3700 RabbitCore® module	1+	S$	115·50

TEAclipper/PIC™ Programming Tools

TEAclipper/PIC is a portable, target-powered firmware programmer for Microchip's PIC MCUs with support for most 8-bit PICs. It can be readily transported and plugged into the PCB or prototyping board containing the target PIC. The TEAclipper USB adapter is required for charging the TEAclippers with firmware

- In-the-field reflash for your TEAclippers as we add capability to program other PICs
- Limited-download feature that prevents further device programming beyond set limit
- Encrypted delivery secures against copying the software
- Unique serial numbers and license codes can be written to each PIC programmed

482-225	TEAclipper 4-pin I/F High Vpp	1+	S$	70·50
482-235	TEAclipper USB Adaptor	1+	S$	79·00

Starter Kit for M16C/28 Microcontrollers

A user-friendly introductory and evaluation tool for the M16C/28 microcontrollers of the M16C/Tiny Series.

- Detachable LCD display module
- Potentiometer for ADC input
- Quick Start Guide, CD-ROM including documentation, IDE, C Compiler, E8a Emulator Debugger and Flash Memory Programmer
- Connection Cable (USB Cable, User Interface Cable)

242-504	Starter Kit for M16C/28 MCUs	1+	S$	460·00

E10A-USB H-UDI Debugger/Emulator

On-chip debugging emulator for use with H-UDI interface. When High-performance Embedded Workshop is installed, one "debugging group" is selected; several target microcomputers can be used if within the same "debugging group"

- Uses common hardware so is compatible with numerous debugging platforms

601-6837	E10A-USB H-UDI Debugger/Emulator	1+	S$	3730·00

H8/3687 MCU Evaluation Kit

A kit for developers to evaluate the performance and functionality of the H8/3687 16-Bit MCUs.

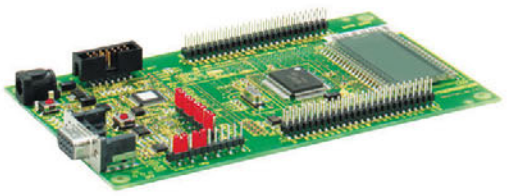
- RS-232 serial port for host communication
- On-chip Flash programming
- All I/O signals available on headers
- Programming and de-bugging software plus full documentation on CD-ROM

621-1032	H8/3687 MCU Evaluation Kit	1+	S$	460·00

H8S/2239 MCU Evaluation Kit

This kit allows developers to evaluate the performance and functionality of the H8S/2239 16-Bit MCU.

- RS-232 serial port for host communication
- On-chip Flash programming
- All I/O signals available on headers
- Documentation, programming and de-bugging software on CD-ROM



621-1048	H8S/2239 MCU Evaluation Kit	1+	S$	910·00

E8a MCU Debugging Emulator

On-chip debugging emulator for Renesas R8C, M16C, H8 & 740 MCU families; successor to the E8 Emulator

- Real-time emulation possible with CPU operating at maximum frequency
- Adequate break and trace functions installed for Tiny microcomputer system development
- Support memory expansion mode (however, this is limited to MCU modes that support MCU)
- User system debugging possible in situations close to completion of product form

259-378	E8a MCU Debugging Emulator	1+	S$	375·00

www.nguyenxuong.com

ST62xx Microcontroller Starter Kit

The ST622x Starter Kit provides all that is needed to start designing, developing and evaluating programs for ST620x, ST621x and ST622x microcontrollers.

- LED indicators, Reset and data control buttons, Resistance trimmer, Temperature control circuit, RS-232 port, Parallel port, User port
- Supplied with:
- 2xST62E25, 2xST62E20 and 1xST62E01, RS-232 cable, CD containing: AST6 assembler and LST6 linker, ST6 Windows debugger, WGDB6, Windows ST6 microcontroller programmer, Epromer, demonstration programs.

355-2885	ST62xx Microcontroller Starter Kit	1+	S$	**345·00**

ST Realizer® II Apps Programming Package

ST-Realizer® is an application programming package that allows you to create embedded application programs ready to be loaded into ST6 and ST7 microcontrollers without having any knowledge of assembler code or C. Symbols are used that represent programming functions to create flow diagrams that perform your application functions.

- Requires Windows 95, 98, 2000 or NT

232-632	ST Realizer® II Apps Programming Package	1+	S$	**395·00**

STX-RLink Programmer and Debugger

Raisonance's versatile, low-cost, in-circuit debugger and programmer for a complete range of STM MCUs (STM8, ST7, µPSD, STM32, STR7 and STR9). Use with application or evaluation boards for in-circuit programming and debugging via an industry standard JTAG connection for ARM® core-based and µPSD MCUs, via STMicroelectronics' SWIM connection for STM8, or via an in-circuit comms connection for ST7 MCUs. RLink, driven by Raisonance's Ride7 integrated development environment provides both unlimited in-circuit debugging and programming of applications for STM8, ST7 and µPSD, or in-circuit debugging of up to 32Kbytes of code for STM32, STR7 and STR9, and unlimited in-circuit programming of applications for these devices.

- For more details and features visit rswww.com

629-1224	STX-RLink Programmer and Debugger	1+	S$	**107·00**

STM32F10xB Evaluation Board

The STM3210B-EVAL board is a complete development platform for the STM32F10x (128 K) series of ARM® Cortex™-M3 core-based microcontrollers. It provides a flexible and open design ideal for demonstrating device capabilities and rapidly evaluating features and peripherals.

- Includes an STM32F103B microcontroller
- Full speed USB 2.0 interface
- CAN 2.0A/B compliant interface
- Two I^2C channels
- Two SPI channels
- Three USART channels with Smart Card support

402-229	STM32F10xB Evaluation Board	1+	S$	**415·00**

Evaluation Board for STM32 Connectivity Line MCU's

A complete development platform for the ARM Cortex-M3 core-based STM32F103ZGT6 MCU which allows evaluation of all peripherals plus development of user applications.

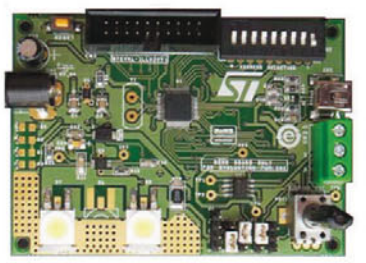
- 128 Mbyte MicroSD Card™ or bigger
- Both A and B type smartcard support
- 64 or 128 Mbit serial Flash, 512Kx16 SRAM, 512Mbit or 1Gbit NAND Flash and 128Mbit NOR Flash
- I^2C/SMBus compatible serial interface temperature sensor
- IrDA transceiver, USB 2.0, CAN 2.0A/B, 2x RS232
- I^2S audio DAC, stereo audio jack
- Induction motor control connector
- JTAG and trace debug support
- Joystick with 4-direction control and selector

714-0439	Eval board for STM3210E MCU	1+	S$	**445·00**

LED Lighting Control Demo Board

Using DMX512, based on the STM32F103C6 ARM Cortex-M3 microcontroller and STCS1A constant current led driver, with jumper settings to configure the board in transmitter, receiver or stand-alone mode. The STCS1A device provides dimming control of the on-board LEDs.

- Over/undervoltage protection using the STBP120 voltage protection device
- Uses the ESDAULC6-3BP6 ESD protection device for advanced USB protection
- Option of powering the LEDs from an external source or through a 5V output from the STBP120
- Board uses an internal clock source, without a crystal
- Mini-B type USB connector can be used if LEDs supplied from external source

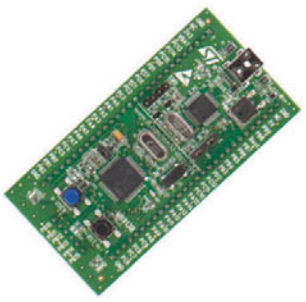


721-1320	LED Lighting Control Demonstration Board	1+	S$	**108·50**

STM32 Value Line Discovery Eval Board

Contains STM32F100RB MCU, 128KB Flash, 8KB RAM in 64-pin LQFP. On-board ST-Link with selection mode switch to use the kit as a stand-alone ST Link (with SWD connector)

- STM32F100RB Microcontroller, 128KB Flash, 8KB RAM in 64-pin LQFP
- On-board ST-Link with selection mode switch to use the kit as a stand-alone ST Link (with SWD connector)
- Designed to be powered by USB or an external supply of 5 or 3.3 Volts
- Can supply target application with 5 and 3 Volts
- Two user LEDs (green and blue)
- One user pushbutton switch
- Extension header for all QFP64 I/Os for quick connection to prototyping board or easy probing



727-6526	STM32 Value Line Discovery Eval Board	1+	S$	**27·20**

STM8L Ultra Low Power Discovery

On-board ST-Link with selection mode switch to use the kit as a stand-alone ST-Link (with SWIM connector for programming and debugging)

- STM8L152C6T6 MCU, 32KB Flash, 2KB RAM, 1KB EEPROM in 48-pin LQFP
- Extension header for all QFP48 I/Os for quick connection to prototyping board for easy probing
- Powered by USB or external supply of 3.3 or 5V
- Can supply target application with 3 and 5 Volts
- Red LEDs for USB comms and 3.3 V power on
- Two user LEDs, LD3 and LD4 (green and blue)
- Two pushbuttons (User and Reset)
- IDD current measurement
- LCD 28-pin DIP (24 segments, 4 commons)

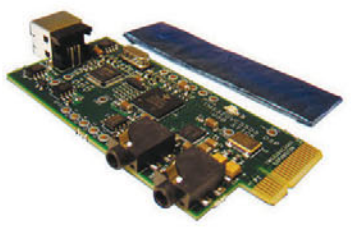
727-6535	STM8L Ultra Lo-Pwr Discovery	1+	S$	**19·20**

www.nguyenxuong.com

Development Tool for TMS320VC550x DSP

The TMDX5505eZDSP is a small form factor, very low cost USB-powered DSP development tool which includes all the hardware and software needed to evaluate the TMS320VC5504/C5505 DSPs. The USB port provides enough power to operate the ultra-low-power C5505 so no external power is required. It has embedded XDS510 emulator for full source level debug capability and supports Code Composer Studio™ Rev. 4.0 IDE and eXpressDSP™ software which includes the DSP/BIOSv kernel.

- TMS320VC5505 fixed-point low-power DSP
- Embedded XDS100 emulator; I^2C serial EEPROM
- TLV320AIC3204 32-bit programmable low-power stereo codec
- Line In, Headphone Out and Expansion connectors
- Removable USB stick enclosure



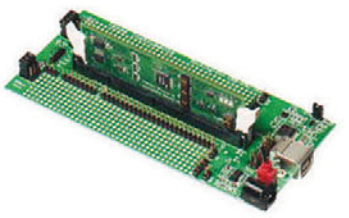
TEXAS INSTRUMENTS

698-6966	Development Tool for TMS320VC550x DSP	1+	S$	95·00

Piccolo TMS320F28035 Experimenter Kit

This Experimenter's Kit is a quick, easy, low-cost way to evaluate the Piccolo TMS320F28x family of devices. It consists of a docking station and an F28x controlCARD™. The docking station is a small mother board that accepts any of the plug-in controlCARDs and gives the user access to all the F28x device's GPIO and ADC signals. Additionally, it also provides two prototyping areas (one on each side of the DIMM100 connector) with an array of 0.1in pitch plated through holes for wire-wrapping and soldering.

- On-board USB emulation or the ability to use an external JTAG emulator
- Ability to use either the USB +5Vdc supply or an external power supply to power the board
- UART communications header
- Boot jumpers for all boot modes
- 3.3 & 5V supplies for prototyping area
- All GPIO, ADC, and other key signal routed to gold edge connector fingers
- All key signals accessible via clearly labelled header pins
- Extensive supply pin decoupling with L+C close to pins
- ADC inputs have diode protection and anti-aliasing filter



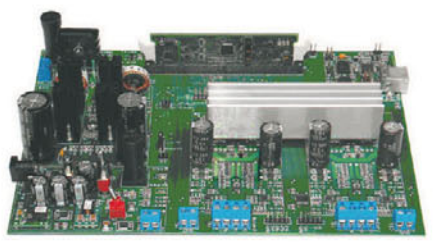
TEXAS INSTRUMENTS

698-6931	Piccolo TMS320F28035 Experimenter Kit	1+	S$	171·00

Piccolo Motor Control and PFC Developer's Kit

A development kit allowing evaluation of all the features of the Piccolo microcontrollers in motor control applications, based on the C2000™ 32-bit Real-time MCU's (TMS320F28035)
Supplied with:

- Piccolo F28035 controlCARD
- PFC and dual motor control baseboard with onboard isolated USB JTAG emulation
- 24V DC desktop power supply
- 55W permanent magnet motor
- Code Composer V3.3 with 32KB code size limit
- Detailed example software and documentation
- Complete hardware schematics, gerber files, etc.



TEXAS INSTRUMENTS

709-4403	Piccolo Motor Control and PFC Developer's Kit	1+	S$	720·00

Evaluation Board For TMS320F28335 EZDSP

The F28335 eZdsp starter kit is a complete software development platform for the TMS320F2833x series of floating-point Digital Signal Controllers. The eZdsp kit includes an F28335 target board that features integrated JTAG emulation, 128Kx16 asynchronous SRAM, CAN 2.0 and RS-232 interfaces, and expansion headers that provide access to all F28335 I/O signals.
The kit also includes the Code Composer Studio™ Integrated Development Environment, a USB interface to the host PC, and a universal power supply. This single orderable part number supports all regions of the world.

- TMS320F28335 Floating-Point DSC with 150 MHz operation
- 512 KB on-chip flash memory, 68 KB on-chip RAM
- 128k x 16 off-chip SRAM
- 12-bit ADC with 16 input channels
- Clamshell socket for the F28335 DSC
- Multiple expansion connectors provide access to all F28335 I/O signals
- RS-232 interface with on-board transceiver and 9-pin D-connector
- CAN interface with on-board transceiver and 9-pin D-connector
- Multiple expansion connectors provide access to all F28335 I/O signals
- Embedded USB JTAG Controller
- IEEE 1149.1 JTAG emulation connector

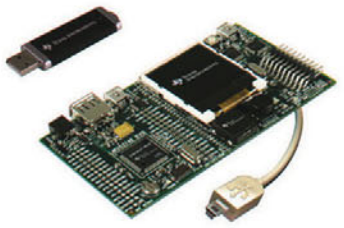
TEXAS INSTRUMENTS

709-4314	F28335 eZdsp starter kit	1+	S$	960·00

Stellaris® LM3S3748 USB H/D Evaluation Kit (Keil)

A compact and versatile evaluation platform for the Stellaris LM3S3748 ARM Cortex-M3-based MCU, supplied with Keil development tools. MCU I/O access via break-out pads.

- Stellaris 50MHz LM3S3748 MCU with 128Kbyte Flash and 64Kbyte SRAM
- Separate USB Host and Device connectors
- USB 2.0 full-speed (12 Mbps) Host/Device controller
- Connector for 2-channel oscilloscope application
- Colour LCD graphics display with 128x128 pixel resolution
- User LED and navigation switch for press functionality
- 8Ω loudspeaker with amplifier
- microSD card socket
- DC jack for optional +5V power supply
- ARM® 20-pin JTAG/SWD debug with in+out modes



TEXAS INSTRUMENTS

698-6969	LM3S3748 USB H/D Eval Kit	1+	S$	186·00

MSP430 USB Debugging Interface Kit

A Flash emulation tool for MSP430 MCU application development. It includes a USB debugging interface used to program and debug the MCU in-situ via JTAG interface or pin-saving Spy-Bi-Wire protocol. The ultra-low power MSP430 flash memory can be erased and programmed in seconds with only a few keystrokes, and requires no external supply. The debugging tool interfaces the MSP430 to the included integrated software environment and includes code to start your design immediately. These tools support development with all MSP430 flash devices.

- Connects any MSP430 Flash device to a PC USB port
- Software-configurable supply voltage 1.8 to 5Vdc at 100mA
- USB interface pod uses standard 14-pin JTAG connector
- Can burn JTAG security fuse

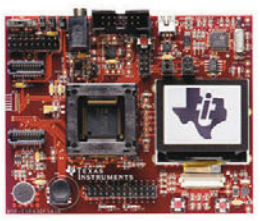
TEXAS INSTRUMENTS

619-5823	MSP-FET430UIF Debug kit	1+	S$	191·00

MSP430F5438 Experimenter Board

A development platform for the latest generation MSP430 MCUs featuring a 100-pin socket which supports the MSP430F5438 and other devices with similar pinout, and allows for quick upgrades to newer devices or quick applications changes. It is compatible with many TI low-power RF wireless evaluation modules such as the CC2520EMK. The Experimenter Board helps designers quickly learn and develop using the new F5xx MCUs, which provide the industry's lowest active power consumption, more memory and leading integration for applications such as energy harvesting, wireless sensing and automatic metering infrastructure (AMI).

- MSP430F5438, 16-Bit Ultra-Low-Power Microcontroller 18MHz
- 256KB Flash memory, 16KB RAM, 5-channel 12-bit ADC
- 34x GPIO, 12x PWM outputs, 4x UART/LIN/IrDA/SPI, 4x I^2C/SPI
- JTAG header for real-time, in-system programming
- USB data connectivity
- Microphone input with TLV2760, Audio output with TPA301 mono amplifier
- Support for TI Low Power RF Wireless Evaluation Modules and eZ430-RF2500T
- 5-position joystick, 2x Pushbutton, 2x LED
- 138x110 greyscale, dot-matrix LCD
- 3-axis accelerometer (ADXL330)



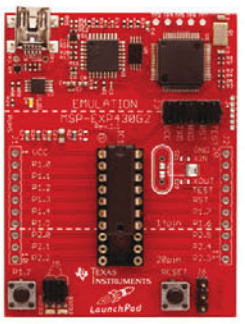
TEXAS INSTRUMENTS

698-6953	MSP430F5438 Experimenter Board	1+	S$	305·00

MSP430 LaunchPad Development Kit

The MSP-EXP430G2 LaunchPad is an easy-to-use flash programmer and debugging tool that provides everything needed to start developing on MSP430 Value Line devices. It includes a DIP socketed target board with integrated emulation to quickly program and debug MSP430 devices in-system through the Spy Bi-Wire (2-wire JTAG) protocol. The MSP430's ultra-low power Flash memory can be erased and programmed in seconds with no external power supply required. The LaunchPad interfaces MSP430 devices to an integrated software environment such as Code Composer Studio Version 4 or IAR Embedded Workbench. These IDEs are free and unrestricted on MSP430 Value Line devices. The LaunchPad supports all MSP430G2xx Flash parts in a 14 or 20-pin DIP package.

- 20-pin DIP processor socket
- Built-in Flash emulation for debugging and programming
- 2x User LED, Power LED, User switch, Reset switch
- 10-pin header for external circuit connection



TEXAS INSTRUMENTS

712-2649	MSP430 LaunchPad Dev Kit	1+	S$	8·40

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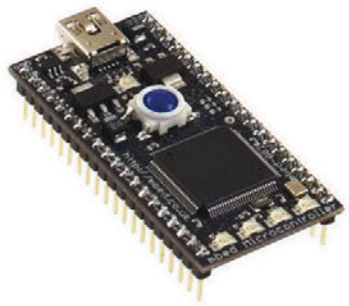
Embedded Systems

Processor Modules

mbed LPC1768 Module

mbed

mbed is a tool for rapid prototyping with microcontrollers. A special feature is on-line code compilation available from the mbed website http://mbed.org when registered.



- Cortex-M3 Core LPC1768 microcontroller, 96MHz with 512KB Flash memory, 64KB RAM
- Ethernet, USB, CAN, SPI, I^2C and GPIO interfaces
- 40-pin DIP format module, board size: 44mm x 26mm
- Powered by USB or +4.5 to +9v applied to V_{IN}
- Current consumption: <200mA (~100mA with Ethernet disabled)
- Real-time clock battery backup input
- +3.3v regulated output on V_{OUT} to power peripherals
- +5.0v available on V_U (only when USB is connected), limited to 500mA
- Digital I/O pins are rated at: +3.3v, 40mA each, 400mA max

Note: A special adapter is available (RS Part no. 703-9235) to allow this module to work with the RS Embedded Development Platform (EDP).

Stock no.	Price per	OM	S$	S$	S$
703-9238	unit	1+	128·00		

Interface Modules

UDSx100 Serial-to-Ethernet Device Servers

LANTRONIX

NEW

- Network virtually any device in minutes
- Access, monitor and control equipment over Ethernet
- Replace dedicated PCs and/or modem lines with fast and reliable Ethernet networking
- Configure quickly and easily via HTTP, DHCP, Telnet, serial or Lantronix DeviceInstaller™ utility
- Supports RS-232, RS-422 and RS-485 communications (Two DB9M DTE serial ports for UDS2100)
- Environmentally-friendly RoHS and WEEE compliant
- Features TruPort® Com port control technology
- Meets the UL 864 9th Edition standards (UDS1100)

Classification: Technology — Module: Ethernet

Description	Stock no.	Price per	OM	S$	S$	S$
One-Port Serial-to-Ethernet Device Server	N 708-0000	unit	1+	250·00	5+ 240·00	
Two-Port Serial-to-Ethernet Device Server	N 708-0012	unit	1+	335·00		

MicroUSB, USB to RS232 Bridge Module

A USB to RS-232 bridge converter which is simple, very small and easy to use. It uses a mini-B type USB connector to connect to a PC and is based on the CP2102 Bridge from Silicon Labs. It provides the user with multi baud rate serial data and access to flow control signals in a convenient 10 pin 0.1" pitch Dual-In-Line package.

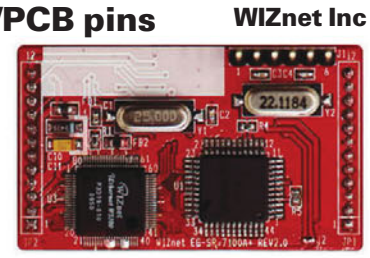
- 12Mbps maximum speed
- Hardware or Xon/Xoff handshaking supported; 300bps to 1Mbps
- UART supports 5-8 bit data, 1-2 Stop bits, odd/even and no parity
- Integrated EEPROM
- On-chip 3.3V regulator available
- Power on reset circuit
- Supports Windows, MAC (OSX-9 and above) and Linux (2.4 kernel and above)
- Self powered or USB powered
- Traffic/Operation LED indicates board status

Manu. Part No.	Stock no.	Price per	OM	S$	S$	S$
UUSB-MB5	426-617	unit	1+	66·50	5+ 61·50	20+ 58·00 ➤

Ser-to-Eth Gateway - Module w/PCB pins

WIZnet Inc

NEW



- WIZnet's WIZ100SR Serial to Ethernet Gateway module features:
- Plug & Play Serial to Ethernet Gateway module
- High stability & reliability by using W5100 WIZnet Chip, a fully-hardwired TCP/IP stack
- 10/100Mbps Ethernet Interface, Max. 230Kbps Serial Interface
- Compact size : 50mm X 30mm

Manu. Part No.	Stock no.	Price per	OM	S$	S$	S$
WIZ100SR	N 419-962	unit	1+	45·60	10+ 45·50	25+ 45·40 ➤

Serial-to-Ethernet Gateway w/Connectors

WIZnet Inc

NEW

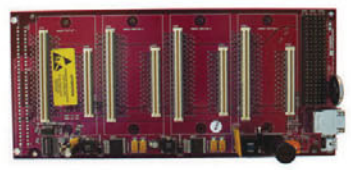
- WIZnet's WIZ110SR Serial to Ethernet Gateway module features:
- Complete Serial to Ethernet module for simple and quick network implementation
- High stability & reliability by using a W5100 WIZnet Chip, a fully-hardwired TCP/IP stack
- Easy and powerful configuration program
- 10/100Mbps Ethernet interface, Max. 230Kbps Serial interface

Manu. Part No.	Stock no.	Price per	OM	S$	S$	S$
WIZ110SR	N 419-968	unit	1+	56·00	10+ 53·50	25+ 51·00 ➤

Single Board Computer

RS Embedded Development Platform (EDP)

EDP 4-Module Motherboard



The Embedded Development Platform (EDP) Baseboard (or "motherboard") consists of four "stations", with a minimum configuration of motherboard with a single plug-in processor module. All four stations are identical, and there are many permutations of processor modules and application modules possible. Even with just the minimum configuration you can easily run a web-server through the standard on-board Ethernet connection. The more advanced user will discover that it is possible to run more than one EDP processor module on the motherboard in a Master and Slave configuration.

- Standard Extended-Euro card size (220 x 100 mm) fitted with rubber feet
- High-quality module connectors designed for multiple insertions/extractions
- Optional 64-way DIN connector allows the board to be plugged into a rack-system backplane
- +12V fused supply input with noise filter, connection by DC jack or screw connector
- +3.3V and +5V switching regulators
- Optional RTC back-up battery
- RJ-45 Ethernet connector with magnetics and LEDs
- Mini-USB debug connector
- I/O breakout header
- 8 x DIP switches ported onto the system I^2C bus
- System reset button
- 4kbytes I^2C serial EEPROM
- Up to three I^2C buses and two CAN networks are available (processor dependent)

Stock no.	Price per	OM	S$	S$	S$
460-285	unit	1+	285·00	2+ 280·00	5+ 275·00

EDP 2-Module Motherboard

This Embedded Development Platform (EDP) Baseboard (or "motherboard") consists of two "stations", with a minimum configuration of motherboard with a single plug-in processor module. Both stations are identical, and there are many permutations of processor modules and application modules possible. Even with just the minimum configuration you can easily run a web-server through the standard on-board Ethernet connection.

- +12V supply input, connection by DC jack or screw connector, optional fuse holder
- Fitted +3.3V and +5V linear voltage regulators
- RJ-45 Ethernet connector with magnetics and LEDs
- Mini-USB debug connector
- System reset button
- I/O breakout headers
- Optional 8 x DIP switches ported onto the system I^2C bus
- Optional serial I^2C EEPROM
- Up to three I^2C buses and two CAN networks are available (processor dependent)

Stock no.	Price per	OM	S$	S$	S$
703-9232	unit	1+	123·50		

EDP LPC1113 Processor Module

Embedded Development Platform (EDP) Processor module for the NXP LPC1113 ARM Cortex-M0 microcontroller including support devices. These 32-bit devices combine the cost benefits of 8-bit and 16-bit devices with the flexibility and performance of 32-bit devices at extremely low power consumption. The architecture delivers state of the art implementations for FPGAs and SoCs. With the Thumb instruction set, Cortex-M0 based microcontrollers support a 4GB address space, provide bit-addressing (bit-banding), and several interrupts with at least 8 interrupt priority levels.

- 50MHz LPC1113 CPU with 24kB on-chip FLASH memory and 8kB SRAM
- DP83848 PHY Ethernet interface
- Micro-SD card slot

Note: The EDP ARM debug module (RS Part No. 703-9241) is required to program/debug this module.

Stock no.	Price per	OM	S$	S$	S$
703-9226	unit	1+	122·00		

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EDP LPC1343 Processor Module

Embedded Development Platform (EDP) Processor module for the NXP LPC1343 ARM Cortex-M3 microcontroller including support devices. These 32-bit devices combine the cost benefits of 8-bit and 16-bit devices with the flexibility and performance of 32-bit devices at extremely low power consumption. The architecture delivers state of the art implementations for FPGAs and SoCs. With the improved Thumb2 instruction set, Cortex-M3 based microcontrollers support a 4GB address space, provide bit-addressing (bit-banding), and several interrupts with at least 8 interrupt priority levels.

- 50MHz LPC1343 CPU with 32kB on-chip FLASH memory and 8kB SRAM
- DP83848 PHY Ethernet interface
- Micro-SD card slot

Note: The EDP ARM debug module (RS Part No. 703-9241) is required to program/debug this module.

Stock no.	Price per	OM	S$	S$	S$
703-9222	unit	1+	126·50		

EDP LPC1768 Processor Module

Embedded Development Platform (EDP) Processor module for the NXP LPC1768 ARM Cortex-M3 microcontroller including support devices. These 32-bit devices combine the cost benefits of 8-bit and 16-bit devices with the flexibility and performance of 32-bit devices at extremely low power consumption. The architecture delivers state of the art implementations for FPGAs and SoCs. With the improved Thumb2 instruction set, Cortex-M3 based microcontrollers support a 4GB address space, provide bit-addressing (bit-banding), and several interrupts with at least 8 interrupt priority levels.

- 100MHz LPC1768FBD100 CPU with 512kB on-chip FLASH memory and 64kB SRAM
- DP83848 PHY Ethernet interface
- Micro-SD card slot

Note: The EDP ARM debug module (RS Part No. 703-9241) is required to program/debug this module.

Stock no.	Price per	OM	S$	S$	S$
703-9229	unit	1+	143·50		

EDP LPC2368 Processor Module

Embedded Development Platform (EDP) Processor module for the NXP LPC2368 ARM7TDMI-S microcontroller including support devices. These devices support complex applications which require greater processing power. The cores provide high-speed 32-bit arithmetic within a 4GB address space. The RISC instruction set has been extended with a Thumb mode for high code density. ARM7 devices provide separate stack spaces for high-speed context switching enabling efficient multi-tasking operating systems. Bit-addressing and dedicated peripheral address spaces are not supported. Only two interrupt priority levels, Interrupt Request (IRQ) and Fast Interrupt Request (FIQ) are available.

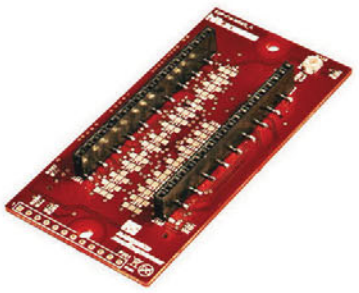
- 100MHz LPC2368FBD100 CPU with 512kB on-chip FLASH memory and 58kB SRAM
- DP83848 PHY Ethernet interface
- Micro-SD card slot

Note: The EDP ARM debug module (RS Part No. 703-9241) is required to program/debug this module.

Stock no.	Price per	OM	S$	S$	S$
703-9210	unit	1+	140·50		

EDP ARM mbed Carrier Module

This Embedded Development Platform (EDP) mbed module introduces a new way to write embedded firmware. Instead of having a C/C++ compiler license installed on your machine, the mbed module makes use of a compiler installed on a virtual host. Your software and project are built within the framework of an HTML page. The compilation is done remotely on your behalf, and the resulting binary image file is transferred to you and stored on the mbed module. By rebooting the module the new image is flashed into the hardware and it then runs your application code. An mbed module plugs into the EDP mbed carrier board, which in turn fits the RS-EDP Baseboard providing access to application modules on the EDP system.



- No C/C++ compiler purchase required: compilation is done via the mbed website once registered: http://mbed.org
- Low-level drivers are provided by ARM for UART, I²C, SPI, PWM, ADC and other peripherals
- All drivers required to interface with the EDP System are provided
- microSD memory card socket: FAT file system support provided
- Header for SparkFun™ LCD-08600 small colour graphics display

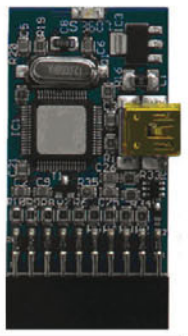
Note: Requires mbed module, not supplied but available separately.

Stock no.	Price per	OM	S$	S$	S$
703-9235	unit	1+	60·00		

EDP ARM Debug Module

Plug-in module for programming and debugging Flash memory in EDP ARM-based processor modules. The module provides support for JTAG debug on the classic ARM7 (EDP-CM-LPC2368), ARM9 (EDP-CM-STR912) and Cortex-M0 (EDP-CM-LPC1113) devices whilst also providing SWD debugging for the later Cortex M3 variants (EDP-CM-LPC1768/1343).

Note: Adapter required for EDP-CM-STR912 module.



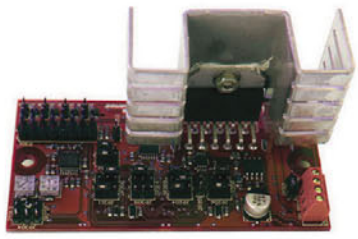
- Mini-USB connector for PC link
- Works with Keil uVision 4 development environment

Classification	Accessory	Core Type	ARM
Technology	EDP		

Stock no.	Price per	OM	S$	S$	S$
703-9241	unit	1+	111·00		

EDP DC Motor Control Module

This Embedded Development Platform (EDP) motor controller module is designed to drive 12V DC brushed motors of up to 2A with 3A being permitted when the auxiliary power connector is used.



- Up to two motor control modules may be fitted to a single EDP baseboard
- Optimized for PWM motor drive
- Based on the LMD18200 DMOS H-bridge controller
- Current monitoring is possible via the ADC of an EDP processor module
- Quadrature encoder/Hall sensor input
- Tachogenerator input
- Open/closed limit switch inputs
- Protected by an over-temperature output which allows the drive to be deactivated under software control

Stock no.	Price per	OM	S$	S$	S$
460-304	unit	1+	570·00	2+ 550·00	5+ 540·00

EDP BLDC Motor Control Module

This Embedded Development Platform (EDP) twin motor drive module is capable of handling two motors rated up to 4A at 24V. This EDP module supports both brushed DC motors, and brushless DC motors and is based on Microchip dsPIC33FJ family devices. One dsPIC is dedicated to each motor.

- Drives two sensored BLDC motors, with Hall sensor outputs for basic 6 step commutation drive
- Can also drive sensorless BLDC motors, which use back EMF sensing for commutation
- Operate with a rotary encoder in replace of the Hall sensors for more accurate position control/ measurement
- Each output drive stage is rated for a 100W motor at 24V, giving a total of 200W per module
- Can be reconfigured as full-bridge, brushed DC motor speed controllers
- Additional smoothed current sense input and a logic level current FAULT comparator input
- DC bus voltage sense for the motor
- Each dsPIC motor drive MCU can read a local demand speed pot, and a local push button mounted on the board
- Additional I/O from EDP Baseboard
- Dedicated RS-232 communications interface
- Connection to the EDP Control I²C bus gaining access to other EDP modules and Baseboard
- Optional connection to the external CAN bus on EDP Baseboard
- Optional connection to the serial UART0 interface, through EDP Baseboard and modules
- Up to four modules can be plugged into each EDP Baseboard
- Independent programming and debugging for both dsPICs
- **Note:** EDP BLDC Motor Control Module 668-6105 available on RS website

Supplied with: *CD with application software to program the on board MCUs for various drive algorithms.*

Stock no.	Price per	OM	S$	S$	S$
703-9244	unit	1+	16·10		

EDP Accessories

HARWiN

Description	Stock no.	Price per	OM	S$	S$	S$
Black, gold-plated	180-9353	unit	10+	0·43	150+ 0·15	500+ 0·14 ➤